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Impersonal constructions with personal reference. Referents of deleted actors in Baltic and Estonian

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This paper explores referential features of deleted actors in impersonal passive and impersonal constructions in three languages: Latvian, Lithuanian and Estonian. Though cross-linguistically passive or impersonal verb forms of intransitive verbs are generally associated with indefinite human agency, our study shows that this correlation is not absolute: in the investigated languages passives and impersonals of intransitives, apart from generic and indefinite actors, may also imply contextually given, definite actors, and for some constructions, e.g. Estonian impersonals with the auxiliary *saama* 'get', this is actually their main use. Data for our study comes from large comparable corpora of web resources. In a small quantitative study we determine the factors that condition a personal use of an impersonal verb form in the three languages. The most important factors are verbal lexeme (certain lexemes show a greater preference for certain types of covert actors), as well as construction type: of two formally distinct impersonal (passive) constructions, one is preferred in non-impersonal functions where the covert actor is a contextually given person.

Keywords: voice-related impersonal constructions, impersonal, passive, Estonian, Latvian, Lithuanian, covert actors, cumulative construction, experiential perfect

1. Introduction[1]

The topic of this paper is constructions with a passive participle as predicate where the actor, though syntactically deleted, has a referent known to speaker and addressee. The investigated constructions are the Subjectless

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or Impersonal Passive in Latvian and Lithuanian, and the Impersonal in Estonian. Both belong to the category of 'voice-related impersonal constructions' in the typology recently proposed by Creissels (2019; see also Creissels 2018, where the grouping of types is slightly different). They are characterized by the fact that an actor, which is expressed by a nominative subject in the active, is deleted or demoted, and no other argument is promoted to subject. Voice-related impersonal constructions are found with both transitive and intransitive verbs; our study is restricted to intransitive verbs.

In passives and impersonals, an argument with the macrorole Actor (Van Valin 2001, 29–33), is part of the argument structure of the verb, even if it is not expressed in the clause. Thus, a clause such as *Snow White was killed* presupposes an external agent or force, as opposed to the clause *Snow White died*. It is therefore possible to ask who the referent of this actor is and how it is understood when it is not expressed. This question has often been answered in a general way, for example, by saying that unexpressed agents of passive constructions are unknown, or irrelevant for the current discourse. However, different kinds of passives vary with regard to the referentiality and topicality of the demoted/deleted actor. An important factor is whether or not another argument, the undergoer, is promoted to a subject and a topic.

While the typical passive[2] involves the syntactic promotion of an undergoer argument to subject position, in voice-related impersonal constructions there is no such promotion. A well-known case in point is the German dynamic passive with the auxiliary *werden* 'become'. Example (1) contains the potentially transitive verb *essen* 'eat' with and without an object promoted to subject, and the intransitive verb *tanzen* 'dance'.

(1) German (constructed example)

Erst	*wurde*	*(der*	*Nachtisch)*	*gegessen,*
first	AUX.PST.3SG	DEF.NOM.SG.M	dessert	eat.PSTP
dann	*wurde*	*getanzt.*		
then	AUX.PST.3SG	dance.PSTP		

'First one/they/we ate (the dessert), then one/they/we danced.'

[2] 'Typical passive' here may be understood both as Shibatani's (1985) 'prototypical passive' and Keenan and Dryer's (2007) 'basic passive', and what is said also applies to the 'canonical passive' (see Siewierska & Bakker 2012).

Passives with intransitive verbs such as German *(es) wurde getanzt*, literally '(it) was danced', meaning 'people danced', are often called impersonal passives and compared to other (semantically) impersonal constructions,[3] such as the German active construction with the pronoun *man* 'one'. The underlying actor of these constructions is typically a group of people. The referent may be indefinite-specific (referring to participants of a specific event) or non-specific, generic (referring to people in general, either mankind in general or everybody at a certain time or place).

In Latvian, however, such impersonal passives are also used when the referent of the underlying actor is indeed known to speaker and addressee; it may even refer to a participant of the speech act. The impersonal passive may thus function in place of a personal form, and it may be combined with an active form in one sentence. In (2), both the agentless passive form *ir būts* (be.PRS.3 be.PST.PP.NA, literally 'it has been been') and the personal active form *nezināju* 'I did not know' refer to the same actor.

(2) Latvian (lvTenTen14)

Barselonā		*un*	*Limasolā*	***ir***	***būt-s***,
Barcelona.LOC		and	Limassol.LOC	be.PRS.3	be-PST.PP-NA
bet	*tajā*		*laikā*	***nezināj-u***,	
but	DEM.LOC.SG		time.LOC.SG	NEG.know.PST-1SG	
kas		*ir*	*skriešana.*		
what.NOM		be.PRS.3	run.ACN.NOM.SG		

'**I have been** [= impersonal passive] to Barcelona and Limassol, but at that time **I didn't know** [= personal active] what running means.'

This observation was one of the starting points for this study, raising the question of how frequent and systematic the 'definite person' use of a passive construction is in Latvian, and how similar the situation is in Lithuanian and Estonian. Our study is strictly synchronic, and we don't make any claims about a possible common heritage in Latvian and Lithuanian, or areal influence between the Baltic languages and Estonian. For various types of passive constructions in Latvian and Lithuanian see Nau, Spraunienė & Žeimantienė (2020, this volume).

Estonian as well as other Finnic languages has a dedicated impersonal voice, used with transitive and intransitive verbs and marked morphologi-

[3] Constructions with a generalizing pronoun such as German *man* 'people' are not impersonal constructions as defined by Creissels (2018; 2019). See section 2.1.

cally on the verbal stem, e.g. *ela-takse* 'live-IPS.PRS', *ela-t-i* 'live-IPS-PST'. For the sake of comparability, in this paper we look only at impersonal perfect and pluperfect, which involve a past passive participle (*on ela-tud* 'be.PRS.3SG live-PST.PP', *ol-i ela-tud* 'be-PST.3SG live-PST.PP'), and are thus structurally closer to Baltic impersonal passives than the synthetic forms. The formal similarity can be seen in (3) in comparison to the first predicate in (2).

(3) Estonian (ENC2017)

Ol-dud	***ja***	***ela-tud***	***on***
be-PST.PP	and	live-PST.PP	be.PRS.3
ning	*nüüd*	*on*	*aeg*
and	now	be.PRS.3	time
otsi	*kokku*	*tõmma-ta.*	
end.PAR.PL	together	pull-INF	

'I have existed and lived [for a long time] and now it is time to pull the ends together.'

The Balto-Finnic Impersonal generally refers to an indefinite, general referent, e.g. an indefinite group of people. In colloquial Finnish, it has developed into a form for first person plural, e.g. *me mennään* 'we go.IPS', i.e. 'we (will) go' (cf. for example Helasvuo 2006). A development from generic meaning to first person (plural) is also known from other languages, though with pronouns rather than verbal morphology. The best-known case is the French pronoun *on* (< 'man'), which in modern colloquial French is used both as a generic pronoun ('one') and for 1PL ('we'). These facts led us to the question whether in Latvian, Lithuanian and Estonian we may be witnessing an early stage of a shift from generic reference to first person reference, or any other tendencies of reference shift.

Our main research questions thus are the following:

- How often do passive or impersonal constructions with intransitive verbs have definite referents?
- How does the proportion of definite and generic reference vary within one language (i) with morphosyntactic features (different auxiliaries in Latvian and Estonian, different participles in Lithuanian), and (ii) with different verbs?
- How often and under which circumstances is reference made to first person (singular or plural)?

- What are the motivations to use a passive or impersonal when the actor is specific and known?

The quantitative questions were investigated in samples drawn from corpora of the TenTen series (Jakubíček *et al.* 2013) and the Estonian National Corpus. Additionally, the corpus material was studied to find characteristic features accompanying the use of voice-related impersonal constructions with definite referents of deleted actors. If not otherwise indicated, all examples in this paper come from the corpora mentioned.

The following Section 2 provides the background of our study, first with regard to the general question of reference in impersonal (passive) constructions, and second the language-specific background of the investigated constructions. In Section 3 we explain the methods of selecting and categorizing data in our study. Section 4 presents the quantitative results of the study, while Section 5 discusses these results and our further observations.

2. Background

2.1. Impersonal constructions and their reference

In the linguistic literature, the label 'impersonal' is used for a huge variety of constructions, variously defined by semantic, syntactic, and morphological criteria, which sometimes overlap but in general lead to distinct classes of constructions (for overviews and critical discussion see especially Siewierska 2008; Malchukow & Siewierska 2011, and further references given there). Creissels (2018; 2019) proposes to restrict the term 'impersonal construction' to constructions with clearly defined syntactic properties within languages with nominative-accusative alignment (A-alignment). He arrives at the following definition:

> In the languages in which A-alignment is strongly predominant, an impersonal construction is a construction that does not include a syntactic slot for an argument encoded in the same way as the agent in the basic transitive construction. (Creissels 2019, 4; cf. Creissels 2018, 6).

This definition of impersonal construction, and the subtype of voice-related impersonal construction introduced above, are most suitable for our purpose. An alternative term for 'impersonal' in this sense is 'subjectless'. We are here not concerned with what happens to other arguments,

especially the object of transitive verbs. This is the primary concern of another definition of impersonal constructions or 'impersonals', where these are distinguished from passives by the lack of full object promotion (see especially Blevins 2003; 2006). With additional criteria, even constructions with intransitive verbs can be classed as either passives or impersonals in Blevins' approach. For example, Holvoet (2015) shows that the Latvian passive of intransitive verbs is not an impersonal, but a passive according to Blevins' classification. However, as pointed out by Holvoet (2001a, 366), if there is only one construction in a language, the decision whether to call it Passive or Impersonal is somewhat arbitrary. It is also important to note that in languages which have two distinct constructions, it may not always be possible to decide to which one an actual construct belongs (see Section 2.4 for details on Estonian). Therefore, we base our use of the term 'impersonal (construction)' on Creissels' and not Blevins' approach. In this sense, both the Baltic Passive of intransitive verbs and the Estonian Impersonal are impersonal, or subjectless, constructions.

Regardless of the terminology used, it has often been remarked that voice-related impersonal constructions usually imply an indefinite human actor (from a cross-linguistic point of view most explicitly by Frajzyngier 1982). Blevins proposes that this implication "is associated with subjectless forms of personal verbs, irrespective of the syntactic source of that subjectlessness", and that it is also a reason for the low acceptability of agent phrases with such constructions (Blevins 2003, 489).

It is however important to separate the two components of 'indefinite human' when discussing the covert actor of an impersonal predicate. A restriction to human actors is a very strong cross-linguistic tendency with voice-related impersonal constructions, though not an absolute universal. Napoli (2009, 167) cites Latin examples of impersonal passives which refer to animals (*latretur* 'there is barking') and weather phenomena (*nubilabitur* 'it will be cloudy'). Much more disputable is the claim that the actor is always indefinite. Our empirical study will show that in Latvian, Lithuanian and Estonian, reference to a definite actor is far from marginal. That this is not an idiosyncratic property of these three languages is evident from data of unrelated or not closely related languages. However, there are very few studies on this topic, which is seldom part of treatments of the passive—for example, Keenan & Dryer (2007) do not even mention the question of semantic or pragmatic properties of the deleted actor in their section on *Passives of non-transitive verbs*.

The best-known case is Latin,[4] where subjectless passives (for example, of *ire* 'go', *venire* 'come', *pugnare* 'fight') even allow agent phrases, although these are extremely rare in texts (Pinkster 1992; Pieroni 2000; Napoli 2009; 2013). Pinkster's article contains some valuable observations for comparative studies of the phenomenon. For example, he points out:

> A positive reason for selecting the impersonal (passive) expression may be that in this way the event is presented not from the perspective of one of the participants, but as such. A clause with an impersonal passive is a statement about what happened rather than about who did what. We might call this 'promotion' of the action involved. (Pinkster 1992, 168–169)

Pinkster also mentions the idiomatic nature of some of the constructions found in Latin texts; similar observations were made in our material from the Baltic languages and Estonian. In a small empirical study on Latin, Pieroni (2000) found evidence for differences among individual verbs with respect to the referentiality of the deleted actor, which she associated with different degrees of transitivity. A further difference was observed between tenses, with a higher degree of individuation and predictability of the agent in constructions with the perfect tense than with the present tense. Napoli (2009), who examined a bigger corpus of Latin texts, refutes Pieroni's claim about the degree of transitivity, and for the correlation between individuation of the agent and tense/aspect she proposes another explanation: it may be "simply a by-product of the fact that a generic (and unexpressed) agent is more frequently found within a generic sentence, which typically involves the imperfective aspect and/or the present tense" (Napoli 2009, 168). While generally approving of the idea expressed by Pinkster (1992) and other scholars of Latin, that the impersonal passive foregrounds the action, Napoli comes to the conclusion that at least in certain contexts this may lead also to a foregrounding of the actor:

> In my opinion, this 'promotion' [of the action] turns out to be the function that the various instances of Latin impersonal passives have in common; at the same time, it must be underlined that to foreground the action may favour, rather than disfavour, the presence of an explicit agent, in order to put emphasis on that participant as opposed or compared to somebody else. (Napoli 2013, 381–382)

[4] Pinkster remarks that "The primary interest [in Latin subjectless passives] has always been in the identity of the Agent" (Pinkster 1992, 160).

Napoli here refers to text passages where the impersonal passive occurs with an agent phrase (thus the actor is demoted, not deleted, or maybe it is re-inserted after deletion); cf. example (4).

(4) Latin (Terence, cited from Napoli 2009, 175; our glossing)

Peccatum	*a*	*me*	*maxumest.*
be_wrong.PST.PP.SG.N	by	1SG.ABL	much.be.PRS.3SG

'I was very much in the wrong.'

Of the languages investigated by us, only Lithuanian allows the use of agent phrases with voice-related impersonal constructions (see 2.3), and for the sake of comparability we did not consider such instances. Nevertheless, we find Napoli's conclusion an important insight for the interpretation of impersonal constructions in general. The fact that a construction highlights the action itself does not necessarily lead to conclusions about the deleted actors. These constructions may of course have a generic meaning, or the actor may be a non-specific person, but they may also invite the listener to search for a specific referent in the context. Among other factors, tense and aspect may play a decisive role, and correlations between a certain tense and a certain interpretation of the referent may be more than a by-product.

The studies of Latin show that the deleted or demoted actor of a passive construction with intransitive verbs can be of any person and number. There does not seem to be any general preference, for example, for speaker inclusion or exclusion.

Also in Turkish, a language neither genetically nor areally related to Latin, Baltic, or Estonian, the covert actor in impersonal passives may be a definite person, but here we find a specialization for first person plural. There are certain correlations between referentiality and verbal lexical semantics and tense. Nakipoğlu-Demiralp (2001) found that in Past tense, the referent is construed as 1PL (see example (5)), while in the Aorist (which expresses present tense, habitual, and epistemic modality), it is either generic ('people', 'anyone') or indefinite-specific ('some people', 'someone'), cf. example (6).

(5) Turkish (Nakipoğlu-Demiralp 2001, 137, example 16a)[5]

Dün	*iki*	*saat*	*koş-ul-du.*
yesterday	two	hour	run-PASS-PST.3

[5] In examples (5) and (6) glosses were adapted to our conventions.

literally: 'Yesterday it was jogged for two hours.' = 'Yesterday we jogged for two hours.'

(6) Turkish (Nakipoğlu-Demiralp 2001, 136, example 14a)
Burada *iyi* *koş-ul-ur.*
here well jog-PASS-AOR.3
literally: 'It is jogged well here.' = 'One jogs well here.'

In both tenses the constructions have in common that the focus is on the activity itself, "drawing the attention away from the individual by whom the activities in question are carried out" (Nakipoğlu-Demiralp 2001, 130). It is not possible to add an agent phrase in Turkish. The class of intransitive verbs that allow a passive construction in past tense in Turkish is described by the author as "verbs of internally instigated situations" (Nakipoğlu-Demiralp 2001, 130–132). This class includes, first, verbs with an agentive subject who acts volitionally and has control over the action ('run', 'sing', 'work'), and second, verbs that describe processes internal to animate beings ('cry', 'yawn', 'shiver', 'sweat'). Verbs of both groups are later labelled 'unergative'. Verbs which imply an external instigator ('unaccusative' verbs, such as 'sink', 'melt', 'explode'), on the other hand, do not allow passive constructions. Of special interest is a small group of 'unaccusative' verbs that can be used in the passive in the Aorist, but not in Past tense (for example, 'die', 'drown', 'be born', 'grow up'). This group is further divided into verbs which are used with both generic and indefinite referents and those which appear in the passive only in generic meaning. This shows a link between verb meaning and types of reference in impersonal passive constructions, but it also shows that a simple division into 'unergative' and 'unaccusative', especially when based on the meaning of the lexeme alone, is insufficient.

Scholars of Finnish have been interested in the referential properties of covert actors in a broader perspective. Helasvuo & Vilkuna (2008) analyse a wide range of constructions that are impersonal from a semantic point of view, but differ formally (thus, only some of them are impersonal constructions in Creissels' sense). They found that beyond the case mentioned in the Introduction (the Finnish Impersonal becoming the form for 1PL), "many of the constructions in question subtly contribute to the expression of the speech act participants" (Helasvuo & Vilkuna 2008, 219). One of these is the so-called 'zero-person construction', which consists in the use of an active verb marked for third person without any subject. This

construction is mostly found with verbs where the actor has the semantic role of experiencer rather than agent. It may also have specific reference, for example in conversations it typically is used for the speaker or the addressee (see VISK: §1347–1348; Laitinen 2006; Helasvuo & Vilkuna 2008, 233; Kärkkäinen, Sorjonen & Helasvuo 2007; Jokela 2012). A zero-person construction is present also in Estonian, but compared to Finnish, its use is somewhat more limited: it occurs most commonly with modal and perception verbs (Jokela 2012). It also exists in Latvian (Holvoet 1995; 2001a).

As the present study is restricted to two special types of voice-related impersonal constructions, we will not consider zero-person constructions further. Neither do we examine here a third type of voice-related impersonal constructions, those based on middle or reflexive forms (Creissels 2019, 16). Studies on these constructions in Romance languages offer several interesting parallels, which will be worth further research (for examples and further references see Cennamo 2016, 974 for a short overview on Romance; Cennamo 2014, 75–76; 82, on the interpretation of the actor in *si*-constructions in Italian dialects). Also a comparison regarding referentiality with special impersonal pronouns such as German *man* or French *on*, or with the impersonal use of personal pronouns (such as English *they, you*) is beyond the scope of our paper. Comparisons of trends in various formal constructions may be a promising topic for future investigations on shifts in referentiality from indefinite to definite, from impersonal to personal, or the other way around.

2.2. Passives of intransitive verbs in Latvian

The Latvian passive construction is formed with the Past Passive Participle and an auxiliary, either *būt* 'be' or *tikt* 'become; get'. Not infrequently, a passive participle appears as the predicate of a clause without any auxiliary. Such constructions are generally assumed to be instances of a passive with *būt*. It is however not clear which tense and mood forms of *būt* may be subject to omission and whether forms of *tikt* cannot be omitted. In our study we will therefore not presume omission, but distinguish between three types of auxiliary use: with *būt*, with *tikt*, and without auxiliary. All formal types are found with transitive as well as intransitive verbs. The participle of a passive construction agrees with the subject of the clause in gender and number, while the auxiliary agrees with the subject in per-

son. If there is no subject, it takes the default values masculine, singular and third person. In this paper, we will gloss the ending of the participle as NA (non-agreement) to distinguish it from instances where the values masculine, singular are the result of gender and number agreement. For more on the Latvian passive, see Nau, Spraunienė & Žeimantienė (2020, this volume). The following shortened examples demonstrate the three variants: auxiliary *tikt* 'become, get' (7), auxiliary *būt* 'be' (8), and no auxiliary (9). The free translation is based on the context of the full example.

(7) Latvian (see full example 34)
brauk-t-s ***tiek*** *daudz.*
ride-PST.PP-NA AUX.PRS.3 a_lot
'we are travelling a lot'

(8) Latvian (see full example 38)
ir ***brauk-t-s*** *vairākas* *reizes,*
be.PRS.3 ride-PST.PP-NA several.ACC.PL.F time.ACC.PL
'I have travelled several times [with this company]'

(9) Latvian (see full example 47)
par *daudz* ***sēdēts,***
too much sit.PST.PP.NA
'you have been sitting too much'

The difference between a construction with *būt* and one with *tikt* roughly corresponds to the difference between a stative and a dynamic (actional) passive, though there are also non-dynamic uses of a construction with *tikt* (Holvoet 2001b, 163–166). In the Latvian grammatical tradition, the two auxiliaries are associated with different tenses: constructions with *tikt* are described as expressing simple tenses (corresponding to simple present, past and future in active voice), while constructions with *būt* express compound tenses, corresponding to present, past, and future perfect (Endzelin 1923, 764; Kalme & Smiltniece 2001, 223–224). In both interpretations, the choice of auxiliary may be an important parameter for the use and interpretation of impersonal passives.

Holvoet (2001b, 163) suggests that the distinction between dynamic and stative passive is made only in the 'personal passive', that is, a construction with a promoted subject. Interestingly, the Latvian Academy grammar of 1959 mentions the passive with non-transitive verbs only as part of the passive with the auxiliary *būt* 'be' (MLLVG I, 553), while its

successor of 2013 does not contain such a restriction and gives examples with both auxiliaries (LVG2013, 503). As the Passive with the auxiliary *tikt* has clearly spread during the 20th century (ousting other auxiliaries such as *tapt* 'become' and becoming more frequent than the Passive with *būt* 'be'), it is possible that its use with intransitive verbs is a more recent development. In our data dynamic passives with intransitive verbs are very well attested, especially with the past tense form of the auxiliary *tikt*.

Passives from intransitive verbs are a clear minority of all passive constructions (see Nau Spraunienė & Žeimantienė 2020, this volume, for some corpus data). Furthermore, there are lexical restrictions and preferences found with certain verbs to be used in the construction. MLLVG I (1959, 653) mentions two lexical groups of intransitive verbs that are more often found in passive constructions: (i) verbs of movement (*braukt* 'go by transport', *lidot* 'fly', *skriet* 'run', *staigāt* 'walk', *peldēt* 'swim') and (ii) verbs expressing a 'state', that is, body posture (*sēdet* 'sit', *gulēt* 'lie', also 'sleep', *stāvēt* 'stand') and verbs expressing being at a location (*būt* 'be' and *palikt* 'stay'). As a lexical group of intransitive verbs that do not allow passivization the grammar mentions verbs that express a change of state, such as *augt* 'grow' and *kļūt* 'become' (MLLVG I, 653). Our corpus searches have shown that change-of-state verbs are indeed very rare in the passive construction; no instances of a passive with *augt* 'grow', *mirt* 'die', or *dzimt* 'be born' could be found. However, individual examples attest that at least some change-of-state verbs may form a passive. Holvoet (2015, 376) gave an example for *aizmigt* 'fall asleep'; a passive construction with this verb occurs three times in the largest Latvian corpus lvTenTen14.

In general, passive constructions are found with intransitive verbs that entail internal instigation as described by Nakipoğlu-Demiralp (2001, 130–132; see section 2.1). Volitionality is not a necessary feature: verbs which express processes and experiences involving an animated body (such as 'be ill', 'cry', 'sweat', 'sneeze') are well attested.

Holvoet (2001b, 161) emphasises the 'extraordinary productivity' of impersonal passives in Latvian and acknowledges only one restriction: a passive of a copular verb is not possible. Productivity concerns the potential of using a form and does not equal frequency, which measures how usual a form is in actual texts. To give an impression of the frequency, Table 1 presents figures of the occurrence of the Past Passive Participle

of selected intransitive verbs, with which the participle was found more than 100 times in the largest corpus lvTenTen14.[6]

Table 1. *Occurrence of past passive participles of selected intransitive verbs in two corpora of Latvian*

First row: Participle form, lexeme meaning, lexeme frequency per million in lvTenTen14

	lvTenTen14 number	lvTenTen14 per million	LVK2018 per million	LVK2018 number
strādāts 'work' (648.95)	4035	6.14	4.88	60
būts 'be' (26,630.07)	1524	2.32	1.55	19
braukts 'go by transport' (333.23)	1102	1.68	0.41	5
iets 'go on foot' (557.37)	615	0.94	1.06	13
dziedāts 'sing' (88.57)	576	0.88	0.49	6
dejots 'dance' (41.11)	340	0.52	0.33	4
skriets 'run' (92.37)	296	0.45	0.24	3
dzīvots 'live' (538.65)	260	0.40	0.24	3
gulēts 'lie', 'sleep' (95.68)	244	0.37	0.16	2
sapņots 'dream' (24.28)	177	0.27	0.24	3
sēdēts 'sit' (131.3)	116	0.18	0.16	2
staigāts 'walk' (53.62)	109	0.17	0.08	1

[6] These raw data contain a few instances where the participle is used in another function, as well as some typographic errors, where the form stands erroneously for an infinitive or a future form (e.g. *būts* instead of *būt* or *būs*). The figures also include transitive uses of the verb (for example 'sing a song', 'go a certain way'), so the number of actual impersonal passive constructions is smaller. However, the great majority of occurrences represent the construction.

Table 1 shows that the overall frequency of the construction is not high and that the majority of instances in texts contain tokens of a rather small set of verbs. Besides representatives of the lexical groups mentioned in MLLVG I, three verbs expressing unbounded activities are among the top lexemes here: *strādāt* 'work', *dziedāt* 'sing', and *dejot* 'dance'. For our quantitative study, we chose the top five lexemes of Table 1 plus two from the second half (*dzīvot* 'live' and *sēdēt* 'sit'). Though the selection is not big, it includes representatives of several verbal classes: telic and non-telic verbs, actions and states, movements and other activities. It is however not possible to fully characterize these verbs out of context. For example, *iet* 'go' may refer both to telic movement ('go to some place') and non-telic movement ('walk').

The typical meaning of a passive with an intransitive verb is characterized in LVG2013 as "expressing a generalization, a regularly or continuously performed activity, or the statement of an impersonal fact" (LVG2013, 503; our translation). Grammars of Latvian do not mention (nor deny) that an impersonal passive may have a known, definite actor. Holvoet (2001b) indirectly refers to this possibility when stating after two examples with a passive of the verb *būt* 'be':

> The main reason for the productivity of impersonal passives like this is that they provide a means of avoiding the use of a 1st person form if the speaker is reluctant to use this form out of modesty or for other motives. (Holvoet 2001b, 162)

We treat this statement as a thesis to be tested in our corpus study, trying to give answers to two questions it opens: (1) are definite referents mostly first person?, (2) is avoidance of a personal form for reasons of modesty an important motive for the use of the impersonal passive?

2.3. Impersonal passive in Lithuanian

The passive in Lithuanian is a periphrastic construction formed by an auxiliary *būti* 'be' and a present or past passive participle with the suffixes *m* and *t* respectively. *m*- and *t*-participles are formed from nearly all verbs, both transitive and intransitive, including reflexives of some reflexive classes (Geniušienė 2006, 39). The meaning difference between *m*-passives and *t*-passives is partly temporal, partly aspectual. *m*-passives

are always dynamic (actional),[7] while *t*-passives can obtain both a dynamic and a stative (resultative) reading.

In present tense the auxiliary is commonly omitted. In passive clauses with an explicit past tense reference, also a past tense auxiliary may be left out (cf. Nau, Spraunienė & Žeimantienė 2020, this volume). The demoted agent is expressed in genitive case, but in the majority of passives (91.6%[8] according to Geniušienė 2016, 146, table 5.11), it is omitted. In the prototypical personal passive, the patient is promoted to subject and acquires the properties of a canonical subject such as nominative case and ability to agree with the predicate (the passive participle) in gender, number and case. Apart from the prototypical passive construction, *m*- and *t*-participles in predicative use can enter into various types of constructions constituting 'the passive family'. For a more detailed overview of these constructions, see Nau, Spraunienė & Žeimantienė (2020, this volume). Here it will suffice to mention some of the types of passive constructions which are relevant for this article.

Impersonal passive, or, using Geniušienė's (2016, 144) terminology, 'subjectless passive' is defined as a passive construction which lacks a nominative subject. Thus, in the case of impersonal passives, passivization only affects the agent which is demoted from the subject position but no other constituent is promoted to subject and the passive participle therefore is used in a non-agreeing form with the ending *-a*[9] (cf. Nau &

[7] *m*-passives of stative verbs such as *mylėti* 'love', cf. *Jis buvo visų mylimas* 3sg.m be.pst3 all.pl.gen love.prs.pp.sg.m 'He was loved by everyone' of course refer to states due to the actionality class of the input verb but they are nevertheless considered actional (verbal) passives both in Lithuanian and English.

[8] Geniušienė's figures are based on a sample of 5,730 passive clauses collected mainly from fiction texts and comprising different types of passive constructions (personal, impersonal, actional, statal etc.), including evidentials with obligatory 'oblique agents'. If the latter were excluded, the ratio of agented passives may be even lower. On the other hand, in the case of actional passives, the reported percentage of agented subjectful passives is much higher—16.7% (259 out of 1552, figures are taken from Geniušienė 2006, 40, table 2).

[9] The ending *-a* was originally a neuter ending which after the loss of the neuter gender in Lithuanian nouns came to be used as a default form in the absence of a proper controller of verbal agreement in a clause. Note that the non-agreeing form and the singular feminine form of the passive participle in Lithuanian are homographs, cf. (i) *Moteris paguldy-t-a į ligoninę* woman(f).nom.sg pvb.put-pst.pp-sg.f to hospital.acc.sg 'The woman is/was hospitalized' vs. (ii) *Daug žmonių paguldy-t-a į ligoninę* many people[pl].gen pvb.put-pst.pp-na to hospital.acc.sg 'Many people are/were hospitalized'.

Holvoet 2015, 11). Passivization of one-place predicates always yields a subjectless output. In Lithuanian, both agentive (e.g. *gydyti* 'cure', *laikytis* 'follow' in example (10)) and non-agentive intransitives (e.g. *sirgti* 'be ill', *mirti* 'die' in (10) and (11)) can be passivized, and both *m*- and *t*-participles may be used (cf. Spraunienė, Jasionytė, Razanovaitė 2015):

(10) Lithuanian

Per	*tiek*	*laiko*		*pra-ein-a*
during	so_much	time.GEN.SG		PVB-go-PRS3
bronchitas,	*jei*	***sirg-t-a***		*ūmia*
bronchitis.NOM.SG	if	be_ill-PST.PP-NA		acute.INS.SG.F
jo	*forma*	*ir*	*tinkamai*	***gydy-t-a***
3GEN.SG.M	form(F)INS.SG	and	properly	cure-PST.PP-NA
bei	***laiky-t-a-si***	*gydymo*		*režimo.*
and	follow-PST.PP-NA-RFL	treatment.GEN.SG		regime.GEN.SG

'So much time does it take to recover from bronchitis if one has had acute bronchitis and has received proper treatment and followed the treatment regime.'

(11)

Nuo	*gripo*	*bei*	*jo*
from	influenza.GEN.SG	and	3GEN.SG.M
sukel-t-ų	*komplikacijų*		***miršta-m-a.***
cause-PP.PST-GEN.PL.F	complication(F).GEN.PL		die-PRS.PP-NA

'One may die of influenza and of complications caused by it.'

The lexical input of impersonal passives in Lithuanian is restricted to intransitives with human subjects (cf. Geniušienė 2006, 39). Having examined 1200 impersonal passives formed of 400 intransitive verbs, Geniušienė concluded that "all intransitive verbs with a human agent can be passivised" (Geniušienė 2016, 274). However, it has to be mentioned that only one-place predicates with nominative subjects may passivize. Both restrictions are abandoned in evidentials allowing for use of *t*-participles of some zero-place verbs such as *lyti* 'rain', *snigti* 'snow' and two-place verbs with a first argument in dative such as *reikėti* 'need' (for more details see below).

From a typological perspective it is important to note that Lithuanian passives of intransitive verbs are quite numerous in texts. According to Geniušienė (2016, 270), they constitute 15% of all predicative passive forms in fiction and about 25% in newspaper texts. Compared to other languages, these figures are very high: e.g. Laanemets (2012, 180) reports

that impersonal passives in Danish, Norwegian and Swedish comprise 3.8%, 2.3% and 1.1% of the passive forms, respectively.

The neuter form of passive participles in Lithuanian may also be used in EVIDENTIAL CONSTRUCIONS. In this type of constructions, the verb always appears in the non-agreeing form of the *t*-participle[10] without auxiliary and the initial subject (if there is one) is used in the genitive case, as the agent phrase of the passive, cf. (12) and (13):

(12) Lithuanian (ltTenTen14)
Legenda *pasakoja,* *kad* *šioje*
legend.NOM.SG tell.PRS.3 that DEM.LOC.SG.F
vietoje ***bū-t-a*** *pagonių* *deivės*
place(F).LOC.SG be-PST.PP-NA pagan.GEN.PL goddess.GEN.SG
Mildos *šventyklos.*
PN.GEN.SG temple.GEN.SG
'A/the legend says that, evidently, in this place there **was** a temple for the pagan goddess Milda.'

(13) Lithuanian (DLKT)
Ei, *žiūrėk!* *Ant* *to* *luisto*
hey look.IMP.2SG on DEM.GEN.SG.M block(M).GEN.SG
esa-m-a *žmonių!*
be-PRS.PP-NA people[PL].GEN
'Hey, look! There (apparently) **are** people on that block!'

It has been argued that evidential constructions should be regarded as non-passives due to their formal and semantic properties (cf. e.g. Lavine 2006; Holvoet 2007; Nau, Holvoet 2015; Spraunienė, Jasionytė, Razanovaitė 2015). Apart from evidential meaning (inferential, reportative or mirative), evidentials differ from impersonal passives in that they exhibit obligatory auxiliary deletion and obligatory expression of the genitival argument. Evidentials may also be formed of copular constructions. In this case the genitival constituent triggers predicative agreement:

(14) Lithuanian (ltTenTen14)
darbo ***bū-t-a*** *atsakingo*
work(M).GEN.SG be-PST.PP-NA responsible.GEN.SG.M
'the work **was** responsible (apparently)'

[10] *m*-participles are rarely used in evidential constructions, the *m*-participle of the verb *būti* 'be' being the only exception.

The predicative adjective in (14) agrees with the genitival NP in number, gender and case. This shows that the genitival NP possesses a coding property of a syntactic subject (Christen 1995) and should be analysed as a non-canonically marked subject rather than an oblique agent phrase.

In Standard Lithuanian, evidential constructions are mostly formed of intransitive verbs. Importantly, the Evidential does not impose any restrictions on the semantics of the subject of the input verb: it may be human, non-human, animate, inanimate. In this respect evidentials differ from impersonal passives, which are restricted to intransitives with human subjects.

In this paper we investigate the referential properties of covert actors in Lithuanian impersonal passives in comparison to Latvian and Estonian. As in evidential constructions the actor is obligatorily expressed, such constructions were excluded from our material. EVIDENTIAL PASSIVES (i.e. impersonal passives lacking the formal properties of evidentials but conveying an evidential meaning (for details, see Nau, Spraunienė & Žeimantienė 2020, this volume)), on the other hand, were included in the study.

Overt vs. covert agents in the passive

In the Lithuanian Academic Grammar the passive voice is defined as "a means of expressing an action irrespective of its agent" (Ambrazas *et al.* 2006, 279). It was mentioned above that in Lithuanian passives the agent is commonly deleted. As in many other languages, there are several motivations for omission of the agent: it may be unknown, unimportant, indefinite or generalized, but it may also be contextually given and therefore known to the speaker and the addressee. In the latter case, an explicit mention of the agent may be irrelevant for the act of communication (cf. Geniušienė 2006, 41).

Geniušienė (2016, 158–159) distinguishes three semantic types of covert agents in agentless passive constructions:

i. specific and definite, i.e. the agent is known, recoverable from the context:

(15) Lithuanian (Geniušienė 2006, 42, our glossing)

Puolusi	*žmona*	*užčiaupė*	*jam*
rush.PST.PA.NOM.SG.F	wife(F).NOM.SG	close.PST.3	3.DAT.SG.M

burną bet žodžiai jau buv-o
mouth.ACC.SG but word(M).NOM.PL already be-PST.3
pasaky-t-i
utter-PST.PP-NOM.PL.M
'(His) wife rushed up to him and pressed his mouth, but the words had already been uttered [by him]'

ii. indefinite, i.e. the agent refers to 'some', 'someone'. This type of agent is not recoverable from the context:

(16) Lithuanian (Geniušienė 2006, 42, our glossing)
Dukart ***buv-au*** ***su-žeis-t-as,***
twice be-PST.1SG PVB-wound-PST.PP-NOM.SG.M
kontūzy-t-as.
shell-shock-PST.PP-NOM.SG.M
'I was twice wounded, shell-shocked.'

iii. generic, i.e. the agent is generalized and refers to 'one, everyone, all people'. According to Geniušienė, this type of agent occurs with *m*-passives only:[11]

(17) Lithuanian (Geniušienė 2006, 40, our glossing)
Didvyriais ***ne-gimsta-m-a,*** *didvyriais* ***miršta-m-a.***
hero.INS.PL NEG-be.born-PRS.PP-NA hero.INS.PL die-PRS.PP-NA
'One is not born a hero, one dies a hero.'

Geniušienė (2006, 43) reports that the implied agent is definite in 59%, indefinite in 32% and generic in 9% of subjectful actional passives.

Impersonal passives with overt agents are rare, especially *m*-passives (cf. Geniušienė 2016, 167). Though examples of agented impersonal passives with the *m*-participle are sometimes given in the literature (cf. 18), authentic examples of this kind are almost non-attested.

(18) Lithuanian (Geniušienė 2016, 15)
Čia *žmonių* ***dirba-m-a.***
here people[PL].GEN work-PRS.PP-NA
'People are at work here.'

As it was mentioned above, the neuter form of the *t*-participle in combination with a genitive of agent has developed into the Evidential construction.

[11] Note that Geniušienė's definition of generic agent is narrower than ours, including only truly universal (gnomic) uses.

Non-evidential agented impersonal *t*-passives are attested, but they are not numerous:

(19) [*Rašau ir įsivaizduoju, kad aš vaikščioju nuo vieno Vilniaus architektūros stebuklo į kitą.*]
Kaip ***mano*** ***vaikščio-t-a*** *anksčiau.*
as 1.SG.POSS walk-PST.PP-NA earlier
'[I am writing and imagining that I walk from one architectural wonder of Vilnius to another.] The way **I used to walk** before.'

Since our study explores the referential types of covert actors of passives of intransitives, examples with overt agents as (19) were excluded from our material.

Agentless subjectless passives (of intransitives) are quite common in Lithuanian (they constitute 33% (820 out of 2,464) of actional passives in Geniušienė's (2006, 40) material).

Geniušienė assumes that the semantic types of covert agents in agentless subjectless passives are the same as in subjectful passives but gives no figures for the ratio of the different types.

However, she says that subjectless agentless passives "are used to emphasize the action itself, which **usually correlates with a concrete and known agent whose mention is therefore redundant**" (2006, 44, emphasis added).

2.4. Impersonal and passive in Estonian

Estonian, like other Baltic-Finnic languages, distinguished historically only between personal (active) and impersonal voice (Viitso 2003, 216). The Estonian Impersonal is subjectless; the actual actor of the event is not expressed. The impersonal can be derived from both transitive and intransitive clauses. The forms of the impersonal are shown in Table 2; the intransitive use is exemplified in (20).

Table 2*. Estonian impersonal paradigm, verb laulma 'sing'*

Tense	Indicative, affirmative	Indicative, negative
Present	*laul-dakse*	*ei laul-da*
Simple past	*laul-d-i*	*ei laul-dud*
Perfect	*on laul-dud*	*ei ole laul-dud*
Pluperfect	*oli laul-dud*	*ei ol-nud laul-dud*

(20) Estonian

Kodu,	*loodus,*	*armastus—*	*nende-st*	
home	nature	love	they-ELA	
on	*laul-dud*	*ja*	*laul-dakse*	*edaspidi-gi.*
be.PRS.3	sing-PST.PP	and	sing-IPS.PRS	henceforth-ADD

'Home, nature, love—(people) have sung about them and will sing also in the future.'

With transitive verbs, the P argument is encoded as an object; it is marked with either the partitive (partial object, example (21) or the nominative case (total object, example (22) and (23)). The choice between partial and total object depends on polarity, quantitative boundedness (quantitative definiteness) of the object's referent, and aspectual boundedness of the event. The total object is used if all the following criteria are met: the verb form is affirmative, the object is quantitatively bounded, and the event is aspectually bounded (perfective, resultative meaning, temporally bounded). If any of these criteria are not met, the partial object is used (Erelt *et al.* 1993, 51–52; Ogren 2015).

(21) Estonian

Se-da	*raamatu-t*	*loe-t-i*	*suure*	*huvi-ga.*
this-PAR	book-PAR	read-IPS-PST	big.GEN	interest-COM

'(People) read this book with great interest.'

(22)

See	*raamat*	*loe-t-i*	*suure*	*huvi-ga*
this	book.NOM	read-IPS-PST	big.GEN	interest-COM
läbi.				
through				

'(People) read this (whole) book with great interest.'

(23)

See	*raamat*	*on*	*suure*	*huvi-ga*
this	book.NOM	be.PRS.3SG	big.GEN	interest-COM
läbi	*loe-tud.*			
through	read-PST.PP			

'(People) have read this (whole) book with great interest.'

Another important restriction (in addition to the demoted human actor) is related to the choice of verbs that can be impersonalized: only verbs that take nominative, canonical subjects are impersonalized (Torn-Leesik 2009; Lindström 2013).

Estonian has another periphrastic voice construction, which is usually called **personal passive,** sometimes also referred to as a resultative or

stative passive. It has an overt subject in the nominative case and expresses a state into which the referent of the subject (semantically the patient) has entered as a result of the action. The personal passive in Estonian is a result of language contact with Indo-European languages, an innovation based on participial passives in Indo-European languages (see Haspelmath 1990; for Estonian, Vihman 2007, 169–170; Torn-Leesik & Vihman 2010). It emerged after the model of impersonal compound tenses. The main difference is in the alignment: in the passive construction, the P argument is promoted to a subject and agrees with the verb *olema* 'be', while in the impersonal construction it is not promoted. In the 3rd person, however, the agreement is evident only in the past tense (24a), since in present tense *on* 'is, are' stands both for 3SG and 3PL (24b).

(24) Estonian

(a) *Raamatu-d* *ol-i-d* *läbi* *loe-tud.*
book-NOM.PL be-PST-3PL through read-PST.PP
'The books were read (all the way through).'

(b) *Raamat /* *raamatu-d* *on* *läbi* *loe-tud.*
book.NOM.SG / book-NOM.PL be.PRS.3 through read-PST.PP
'The book/books was/were read (all the way through).'

Examples like (23) and (24b) reveal that there is an overlap between passive and impersonal paradigms in Estonian, more precisely between the compound tenses of the Impersonal and simple present and past of the Passive. This has been discussed widely in Estonian linguistics (e.g. Wiedemann 1875, Erelt 1979, Pihlak 1993, Rajandi 1999 [1968], Torn 2002, 2006, Vihman 2007, Torn-Leesik 2009, Lindström & Tragel 2007, 2010, Torn-Leesik 2016).

Lindström & Tragel (2007, 2010) have distinguished a third construction, the so-called **possessive perfect**, which has parallels in many European languages (Heine & Kuteva 2006, 140-182). The Estonian possessive perfect construction shares the same morphosyntactic means that are used in personal passive and impersonal compound tenses (auxiliary 'be', past passive participle), but in this construction the agent of the event is expressed as an oblique argument in the adessive and it occurs in the topical position (like *mul* in 25-26). The construction is formed both with transitive and intransitive verbs. For more information, see Lindström &Tragel (2010).

(25) Estonian

Mu-l	*on*	*raamat*	*läbi*	*loe-tud.*
1SG-ADE	be.PRS.3SG	book.NOM.SG	through	read-PST.PP

'I have read the book (through).'

(26)

Mu-l	*on*	*maga-tud.*
1SG-ADE	be.PRS.3SG	sleep-PST.PP

'I have slept.'

Our empirical study is restricted to intransitive verbs or intransitive uses of transitive verbs, so the problem of distinguishing between promoted or non-promoted P-arguments is avoided. We also excluded clauses with an adessive S argument.

Auxiliary. All the constructions listed above (impersonal, passive and possessive perfect) use two auxiliaries: *olema* 'be' and *saama* 'get, become'. *Olema* 'be' is a common auxiliary in written standard Estonian, while *saama* 'get, become' is mentioned less in grammar descriptions (Erelt *et al.* 1993, 30–31, Erelt 2017), although it occurs often in informal use, e.g. in North Estonian dialects or Old Literary Estonian (Alvre 1993, Uiboaed 2013: 182, Lindström 2015), and as will be shown in the present paper, also in Internet language. *saama* is a polysemous verb that is used in many grammatical constructions and is one of the most common modal verbs in Estonian (Habicht & Tragel 2014, Tragel & Habicht 2017; Kehayov & Torn-Leesik 2009). In the impersonal, *olema* and *saama* are used differently: *olema* as an auxiliary in the impersonal construction forms regular perfect and pluperfect forms (see Table 2), while *saama* is mostly used in the 3rd person past tense form (*sai*, example (27)). The construction is called also periphrastic impersonal (Erelt 1990).

(27) Estonian (ENC2017)

Kui	*õpetaja-lt*	***sa-i***	***küsi-tud,***	*miks*
when	teacher-ABL	get-PST.3SG	ask-PST.PP	why
just	*n* *arv*	*maailmamudeldamise-s*		*mängu-s,*
exactly	n number	world_modeling-INE		game-INE
vasta-s	*ta,*	*et*	*see*	*on*
answer-PST.3SG	3SG	that	this	be.PRS.3
puhas	*matemaatika.*			
pure	mathematics			

'When (we) asked the teacher why exactly the number n is used in world modelling, s/he answered that this is pure mathematics.'

Demoted agents of the impersonal. The demoted agent of the Estonian Impersonal is claimed to be human, mostly a general or plural participant (Rajandi 1999, Pihlak 1993, Torn 2002, Blevins 2003, Erelt 2003, Vihman 2008, Torn-Leesik 2009, Torn-Leesik & Vihman 2010, Pajusalu 2015, Torn-Leesik 2016), sharing this feature with other Finnic languages. According to Shore (1988), there are two prototypes of impersonal in Finnish: in Prototype I the actor has a generalised plural reference, while in Prototype II, the reference can be made to a specific person or group of people, but for some reason, the identity of the actor(s) has been left unidentified (Shore 1988). The same applies to Estonian: example (28) exemplifies Prototype I (generic reference), example (29), Prototype II (unidentified person or group, specific reference).

(28) Estonian (title in the newspaper *Postimees*, 4.12.2019)
Selle-l *detsembripäeva-l* *minnakse* *kõige*
this-ADE december_day-ADE go.IPS.PRS most
sagedamini *lahku*
frequently apart
'(People) divorce most often on that day in December.'

(29) Estonian (ENC2017)
Täna *on* *mei-l* *töö* *juures*
today be.PRS.3 1PL-ADE work.GEN by
jälle *moe-s* *kõigi-le* *teata-da* *millal*
again fashion-INE all-ALL announce-INF when
puhkuse-le *minnakse.*
vacation-ALL go.IPS.PRS
'Today at work it is in fashion to tell everybody when you are going to vacation.'

Torn-Leesik and Vihman (2010) have studied the referents of demoted actors of impersonal present and simple past tense forms in spoken Estonian. They distinguish five main types of readings related to demoted actors: (1) universal reading (general reference, as in Prototype I); (2) vague existential reading ("the speaker does not know the identity of the actor […] [or] the speaker knows the identity and leaves it unspecified—whether because of relevance or politeness considerations", p. 315); (3) specific existential readings (the identity of the actor(s) is known for the interlocutors from the context; the reference can be made to singular actors and even discourse participants); (4) corporate reading ("the impersonal referent is a socially designated group of people, such as the government, committees,

or institutions and authorities such as the school, the police, and others", p. 328), and (5) hypothetical impersonals: unspecifiable actors of hypothetical events. According to Torn-Leesik & Vihman (2010), in spoken data the most common type is existential, vague reference (42.2%), followed by corporate (26.9%) and universal readings (19%). In parliament speeches, the corporate reading is the most common (74.5%), followed by vague existential reading (15.2%). Also specific reference is possible; it was found in 7.8% of uses in spoken corpus data and 4.5% in parliament speeches. Their study did not concern perfect and pluperfect, which are the focus of the current study.

According to Torn-Leesik & Vihman (2010) the impersonal is sometimes used in cases when the identity of the actor is entirely clear and specific to the speaker as well as to the addressee, due to the linguistic context. The reason for specific reference to a person or group is related to discourse needs, such as a speaker's need for distancing from the event described; negative (distancing) politeness strategies, dramatic effect etc.

Pajusalu (2015) shows how impersonal forms are used in referential chains. Typically, the impersonal verb form is used for referring to a group of people. In spoken language the same referent(s) are referred to with different means in a sequence of clauses, e.g. impersonal, 3rd person plural verbal ending, 3rd person pronouns. Moreover, also 3rd person singular pronouns and sometimes even 1st and 2nd person may alternate with the impersonal. The impersonal may alternate also with so-called personless conditional, which is typically used speaker-inclusively, while impersonal is typically speaker-exclusive.

Erelt (1990) and Lindström (2010) have shown that impersonal voice can be used as a negative politeness strategy in Estonian—it is one of the means that helps to avoid explicit reference to interlocutors. Especially the impersonal construction with the auxiliary *saama* in the past tense form (*sai*) + PST.PP is commonly used for referring to the speaker, e.g. in internet fora where interlocutors do not know each other in person (Lindström 2010, Erelt 2017, 223).

3. Methods of data selection, preparation and processing

To find out how often a voice-related impersonal construction is used with definite actors, and to compare the three investigated languages, we conducted in each language a small empirical study. We used corpora of

the TenTen series (Jakubíček *et al.* 2013)—lvTenTen14, ltTenTen14, and the Estonian National Corpus 2017 (ENC2017) at the platform sketchengine.eu. These corpora have been compiled from Internet resources and contain registers in which certain constructions with the properties we were interested in typically occur, such as blogs, fora and reports in newspapers and magazines.

As it is not possible to search for passive constructions of intransitive monovalent verbs automatically, and to provide for a better compatibility of data across languages, we decided to search for constructions with certain verbs. As described in Section 2.2 for Latvian, the choice of verbs for this study was partly based on frequency of occurrence and partly by the wish to include verbs of various semantic classes. Our initial aim was to gather 100 constructions for each of five verbs with the same meaning in Latvian, Lithuanian and Estonian. However, this turned out not to be feasible, as Latvian and Lithuanian differed too much with respect to intransitive verbs which are typically used in the passive and sufficiently attested. We therefore ended up with slightly different samples. For the statistical analysis, whose results are presented in Section 4, we then selected the samples shown in Table 3.

***Table** 3. Verbs chosen for comparative statistical analysis, with number of filtered constructions*

	'be'	**'live'**	**'go'**	**'ride'**[12]	**'sing'**	**'sit'**	**Other**
Latvian	*būt* (100)	*dzīvot* (100)	*iet* (100)	*braukt* (100)	*dziedāt* (100)	*sēdēt* (100)	*strādāt* 'work' (100)
Lithuanian	—	*gyventi* (100)	*eiti* (100)	*važiuoti* (100)	*dainuoti* (100)	—	*miegoti* 'sleep' (63 + 11 negated) *stovėti* 'stand' (26)
Estonian	*olema* (111)	*elama* (141)	*käima* (108)	*sõitma* (102)	—	*istuma* (141)	

[12] The meaning of the verbs we gloss as 'ride' comprises various ways of going by transport—they are used for driving a car, going by bus, travel by boat, riding a bicycle, etc. The actual English translation of tokens of these verbs therefore varies greatly.

In Latvian, the query was simply that for the past passive participle (*t*-participle) of the respective verb with the default ending nominative masculine singular, which we gloss here as NA (no agreement), for example, *dzīvots* (*dzīvo-t-s* 'live-PST.PP-NA'). The first 200 hits (or all if there were less than 200) were downloaded for manual filtering to obtain samples of up to 100 observations. Criteria for not considering an example for the sample included:

- constructions with a nominative subject (for example, 'the car was driven', 'a song was sung'), or attributive use of the participle ('a car driven in Latvia');
- clauses without context—for example, a title or subtitle of a newspaper article;
- copies or quotes of examples that were already included;
- a second occurrence of the same construction within one sentence;
- examples from poetry where rhyme and rhythm influenced the choice of construction;
- examples with grammatical mistakes which may come from not fully competent speakers or automatic translation; examples with a large amount of typographic errors that resulted from very careless production and made the example not fully comprehensible.

About 90% of raw observations qualified for the sample.

For Lithuanian, the same procedure was used. In order to achieve formal comparability with the Latvian and Estonian data, only passive constructions with *t*-participles of the selected intransitive verbs were analyzed. The *t*-participle of *būti* 'be' (*būta*) was not included into the study, as it is mainly used as an evidential. In order to determine whether definite reference of a covert Actor is possible with impersonal *m*-passives, random samples of 200 examples of the verbs *gyventi* 'live' and *važiuoti* 'ride' were taken from ltTenTen14. After sorting out attributive uses and other irrelevant examples, samples of 100 examples of each verb were obtained and analyzed.

As described in Section 2.4 above, the Estonian Impersonal has synthetic and analytic forms, of which only the latter were considered for this study. For the sake of better comparability all occurrences with an explicit P argument were excluded from the data.

Estonian data was obtained from the Estonian National Corpus 2017 (collected similarly to TenTen corpora) in two steps: first, only the verb *elama* 'live' was analysed; in this case we searched for a combination of an auxiliary (either 'be' or 'get') and the verb in the past passive participle. Therefore, the data includes only some accidental usages of past passive participle alone as a core of the impersonal clause. For other verbs, the search was conducted similarly to other languages—by the participle.

The obtained samples of all three languages were then annotated for the referential type of the deleted actor and for features that possibly correlate with it.

As we were primarily interested in definite, known actors, we divided the remaining types of reference into just two groups, labelled 'generic' and 'indefinite', where the latter also serves as a container for all observations that do not fall into one of the other, better defined, groups. A similar division was made in other studies, for example Napoli (2009, 169–170).

As 'generic' we classified situations where the covert actor of a passive predicate was everybody, or could be anybody, of a vaguely specified group of persons. The following two examples illustrate this type.

(30) Estonian

Seni	***on***	***ela-tud***	*pimeduse-s.*
so_far	be.PRS.3	live-PST.PP	darkness-INE

'So far, (people/everybody) have/has lived in darkness.' (about people in Estonia)

(31) Latvian

Interesanti		*ir*	*atgriezties*	*vietās,*
interesting.ADV		be.PRS.3	return.INF.RFL	place.LOC.PL
kur	*jau*	*kādreiz*	***bū-t-s.***	
where	already	once	be-PST.PP-NA	

'It is interesting to return to places where (one has / you have) already been once'.

This reference type is called 'universal' in Torn-Leesik & Vihman (2010). Giacalone Ramat and Sansò (2007) distinguish between 'species-generic' and 'human non-referential indefinite'. In Gast & Van der Auwera's (2013) system, developed for the semantic description of human impersonal pronouns, there are four classes that correspond to our 'generic', as they distinguish between internal and external universal and combine this distinction with parameters concerning the state of affairs. Such finer

distinctions may be important when discussing border cases between generic and definite actors. For example, it is not always clear whether a meaning 'we' has a definite referent or is rather generic. However, in our study we disregarded these aspects.

The 'indefinite' reference type includes Torn-Leesik & Vihman's (2010) types 'vague existential' and 'corporate', or the diverse subtypes of 'existential' distinguished in Gast & van der Auwera (2013). The actor is a person or group of persons whose identity may be known to the speaker, but is not identifiable for the addressee (32). When the identity is not specific, the meaning is similar to generic reference, but the scope is narrower (33).

(32) Estonian

Pärast	*renoveerimis-t*	*on*	*korteri-s*	*ela-tud*
after	renovation-PAR	be.PRS.3	flat-INE	live-PST.PP
paar	*aasta-t.*			
couple	year-PAR			

'After the renovation, the flat has been lived in for a couple of years.'

(33) Latvian

Viņu	*dziesmām*	*jau*	*tiek*	*dziedā-t-s*
3.GEN.PL	song.DAT.PL	already	AUX.PRS.3	sing-PST.PP-NA
līdzi.				
along				

'(Some) people are already singing along to their songs.'

In the case of 'definite' reference, the actor is known to both speaker and addressee and recoverable from the context. Sometimes a rather large context was required to determine the referent, or knowledge about the register and text function. Without context, example (34) could be understood as generic, but as it is the beginning of a personal report in a blog, it is evident for the reader that the author is talking about themselves, and the following text will show that the actor is the author's family, thus 1PL rather than 1SG.

(34) Latvian

Ļauks		*šogad*	*septembris.*		*Tādēļ*
fine.NOM.SG.M		this_year	September.NOM.SG		therefore
uz	*mežu*	*un*	*ezeru*	*gribas*	
to	wood.ACC.SG	and	lake.ACC.SG	want.PRS.3SG.RFL	
biežāk	*un*	***brauk-t-s***	***tiek***	*daudz.*	
often.COMP	and	ride-PST.PP-NA	AUX.PRS.3	a_lot	

'September is fine this year. Therefore, one wants (= we want) to go more often to the forest and the lake, and **we go** there a lot.'

In the Estonian example (35) it was the previous context which identified the referent as the speaker.

(35) Estonian

Selle	*piina-ga*	*ei*	*taht-nud*	*enam*	
this.GEN	pain-COM	not	want-PST.AP	any_more	
olla	*ja*	***ela-tud***	***on***	*juba*	*küllalt*
be.INF	and	live-PST.PP	be.PRS.3	already	enough
ja	*ükskord*	*pea-b*	*mine-ma.*		
and	once	must-3SG	go-SUP		

'In this pain (one = I) didn't want to exist anymore. (I) **have lived** enough and once one has to go.'

For definite referents, we further marked the person and number of the referent. In addition, we annotated for polarity, auxiliary type, and clause type, as these parameters were suspected to have an influence on the interpretation in at least one of the languages. Auxiliary type was of special interest because two of our three languages, Latvian and Estonian, use two different auxiliaries in impersonal constructions. Furthermore, we annotated for person and tense; these parameters do not go into the quantitative analysis in Section 4, but will be considered in section 5.

Auxiliary type had the values 'no auxiliary' and ''be' auxiliary' in all three languages, and additionally ''get' auxiliary' in Latvian and Estonian. In Lithuanian, the majority of observations had no auxiliary. In consequence, polarity was not annotated for Lithuanian, as negation is marked by a prefix on the participle if there is no auxiliary, and these forms were not included in the samples (except for 11 instances of *nemiegota* 'not slept' obtained by a special query for this form). 'Clause type' had the values ADV (adverbial clause), COMPL (complement clause), REL (relative clause), and MAIN (independent clause).

For the statistical analysis, we applied Pearson's chi-squared test that enables us to decide whether the observed variables (auxiliary type, verb lemma, and clause type) affect the distribution of reference types significantly. In addition, we applied to each language dataset the conditional inference tree model (Hothorn *et al.* 2006). The method works by partitioning the observations (= uses of generic, indefinite and definite reference) in the sample recursively into two distinct groups based on the explanatory

variables which are most strongly associated with the response variable. Partitioning continues until no further statistically significant splits can be made, i.e. there are no more explanatory variables the levels of which significantly differ from each other in terms of evoking a preference for a certain type of reference. The method also helps to visualize the effect of variables in the model. The method is applied to each dataset separately; the aim is to find out whether the variable that we take into account have any effect on the preference for generic, indefinite or definite usages of the passive impersonal.

4. Some quantitative results

When looking at the quantitative data in Table 4, one can easily observe that the distribution of generic, indefinite and definite uses of the impersonal passives in Latvian, Lithuanian and Estonian is similar in the sense that all three languages use the impersonal passive often for definite reference (in Lithuanian 42%, in Latvian 51% and in Estonian 63%). According to Pearson's chi-squared test, the distribution of generic, indefinite and definite uses in three languages is statistically different ($\chi 2$ (4, 1776) = 88.22, $p < .001$), meaning that there are important differences between the languages. As it can be seen from Table 4, generic reference is more common in Latvian and Lithuanian than in Estonian, while Estonian refers more often to an indefinite (vague) group of people; this has generally been considered being characteristic to impersonal voice in Estonian (see Section 2.4.).

***Table** 4. Distribution of generic, indefinite and definite usages of the impersonal in the data*

Reference type	Latvian		Estonian		Lithuanian	
	N	%	N	%	N	%
generic	195	27.9%	83	14.4%	197	39.4%
indefinite	147	21.0%	129	22.4%	93	18.6%
definite	358	51.1%	364	63.2%	210	42.0%
	700		576		500	

In all three languages, the construction occurs remarkably more often in affirmative clauses than in negative clauses. In Estonian, only 4% of the investigated impersonal constructions are negated. For the Latvian subjectless passive, the figure is a bit higher – 14%. In Lithuanian, negation was not systematically investigated, but it seems to be rarer than in Latvian. In the Estonian data definite reference was rare under negation but in Latvian and Lithuanian it was common. Since negative polarity is infrequent in our data, we do not look at it more closely in the following sections.

In the next sections we look at each language separately, considering in turn auxiliaries, verb lemmas and clause types. The aim is to find out under which conditions different reference types typically are used.

4.1. Latvian

4.1.1. Auxiliaries

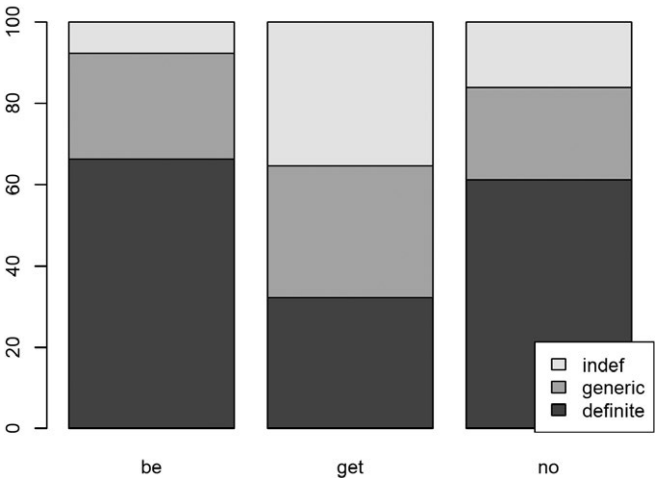
The raw data is given in Table 5, the proportions are shown in Figure 1. According to the chi-squared test there is a statistically significant relation between auxiliary type and reference type: $\chi 2$ (4, 700)= 89.204, $p < .001$.

In Latvian, *tikt* 'get, become' is slightly more frequent than *būt* 'be' in our data (40.9% vs. 35.1% of all observations). However, the use of the bare participle is also common (24%), and this is traditionally considered to be a variant of the 'be' auxiliary.

Table 5. *Distribution of reference types with different auxiliaries in Latvian*

	'get'	'be'	no auxiliary	Total
Definite	92 (32.2%)	163 (66.3%)	103 (61.3%)	358
Generic	93 (32.5%)	64 (26%)	38 (22.6%)	195
Indefinite	101 (35.3%)	19 (7.7%)	27 (16.1%)	147
Total	286 (100%)	246 (100%)	168 (100%)	700

Figure 1. *Distribution of reference types with different auxiliaries in Latvian*



As can be seen in Figure 1, get-passive behaves differently from be-passive and shows a higher rate of generic and indefinite actors. With zero auxiliary, the distribution of reference types is closer to that of the be-passive than to the get-passive: both are often used for referring to definite actors.

4.1.2. Verbs

Data of 7 different verb lexemes were included in the analysis: *būt* 'be', *iet* 'go', *dzīvot* 'live', *braukt* 'ride', *dziedāt* 'sing', *sēdēt* 'sit', and *strādāt* 'work'. The results are shown in Table 6 and Figure 2.

The difference in the distribution of reference types between verb lexemes is statistically significant: $\chi 2$ (12, 700) = 159.57, $p < .001$, meaning that the use of definite, generic and indefinite reference types is not independent from the verb lexeme.

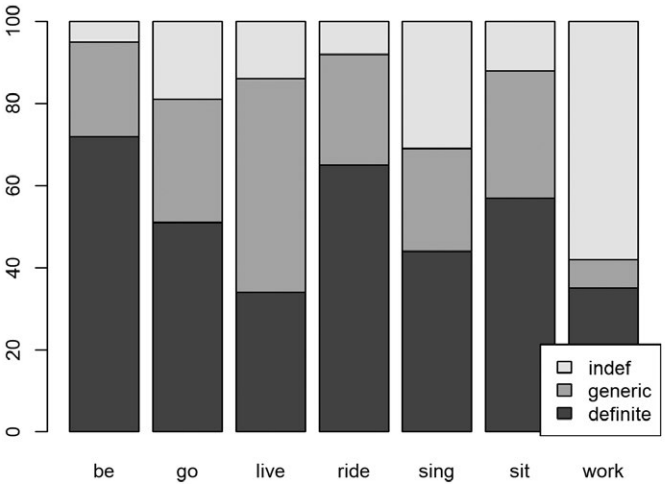
The impersonal passive of the verb 'live' is used more often generically (referring to 'everybody') than other verbs (52%). The same appears also in Estonian and Lithuanian.

The verb 'work' has a surprisingly high number of indefinite usages (58%). The verbs 'be' and 'ride' have high numbers of definite actors (72% and 65% respectively).

***Table 6**. Distribution of reference types with different verbs in Latvian*

	'be'	'go'	'live'	'ride'	'sing'	'sit'	'work'	Total
Definite	72	51	34	65	44	57	35	358
Generic	23	30	52	27	25	31	7	195
Indefinite	5	19	14	8	31	12	58	147
Total	100	100	100	100	100	100	100	100

***Figure 2**. Distribution of reference types with different verbs in Latvian*



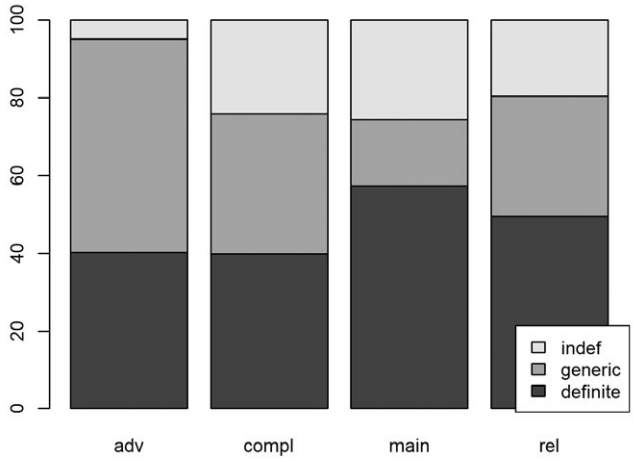
4.1.3. Clause type

We have distinguished between main clauses and three types of subordinated clause: adverbial, complement and relative clauses. As expected, more than half of the data come from main clauses (see Table 7 and Figure 3). In adverbial clauses the impersonal passive is more often used for generic reference, compared to other clause types. Definite reference is most commonly found in main clauses. The differences in the distribution of reference in the analysed clause types are statistically significant ($\chi 2$ (6, 700) = 78.546, $p < .001$).

***Table** 7. Distribution of reference types in different types of clauses in Latvian*

	Main clause	Adverbial	Complement	Relative	Total
Definite	228 (57.3%)	49 (40.2%)	33 (39.8%)	48 (49.5%)	358
Generic	68 (17.1%)	67 (54.9%)	30 (36.1%)	30 (30.9%)	195
Indefinite	102 (25.6%)	6 (4.9%)	20 (24.1%)	19 (19.6%)	147
Total	398 (100%)	122 (100%)	83 (100%)	97 (100%)	700

***Figure** 3. Distribution of reference types in different types of clauses in Latvian*



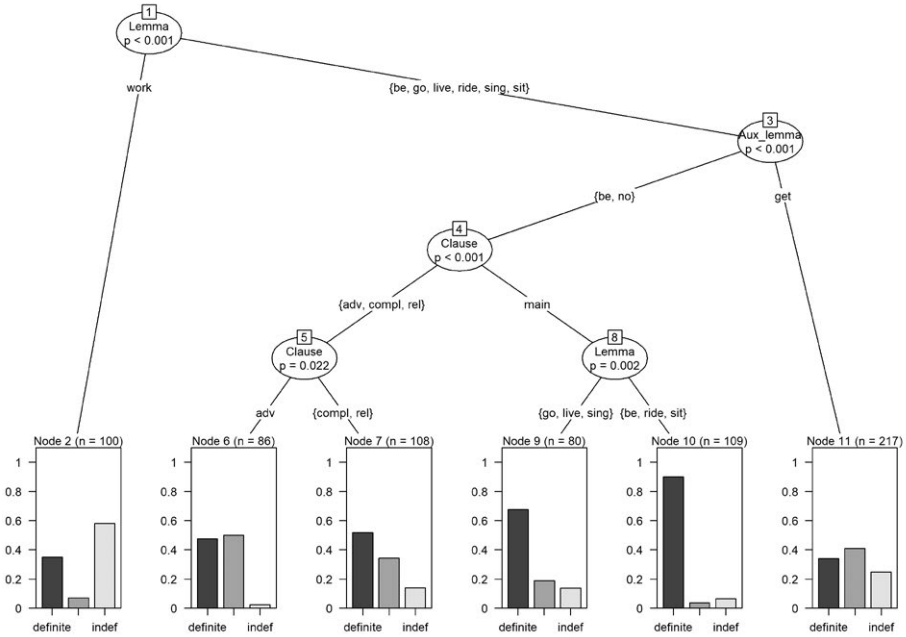
4.1.4. The interplay of variables

In order to analyse and visualise the interplay of different variables, we apply conditional inference tree analysis. We included all possible explanatory variables: polarity, auxiliary (Aux_lemma), verb lemma (Lemma), and clause types (Clause) in order to find out the most important variables and their interactions that favour or counteract the different reference types.

The conditional inference tree in Figure 4 shows that the most important variable in predicting definite, indefinite and generic use of the deleted actor is the verb lemma: 'work' behaves differently from other

verbs in the data, as it is used more often with indefinite actors (Node 2, light column). The second split is done by the predictor Aux_lemma (Node 3), grouping constructions with the get-auxiliary separately from the two other types: with 'get', the distribution of reference types is more equal (Node 11) than with the auxiliary 'be' and without auxiliary. Within this group the predictor Clause_type (Node 4) makes a statistically significant split, grouping main clauses separately from others.

***Figure 4**. Conditional inference tree for Latvian subjectless passives*



4.2. Lithuanian

4.2.1. Auxiliaries

In Lithuanian, only *būti* 'be' can be used as an auxiliary in the impersonal passive, and as can be seen from Table 8, the most common pattern is to use the participle without any auxiliary. By this feature, Lithuanian differs from Latvian and Estonian, where the use of auxiliary is the more common option.

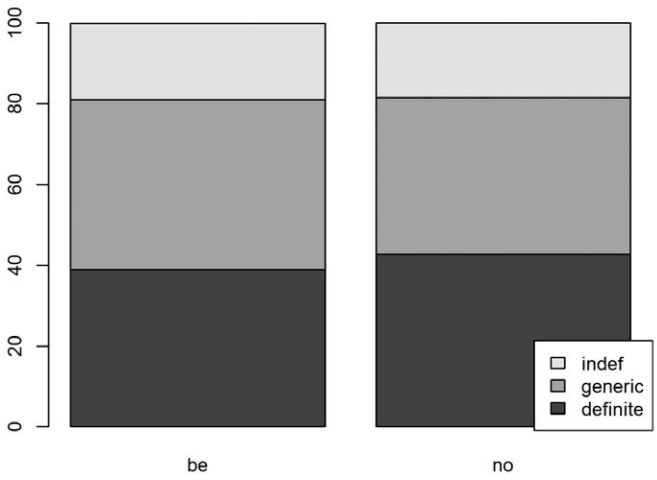
Both options of the impersonal passive—with an auxiliary 'be' or without the auxiliary—show very similar distribution of reference types in the

data (see Table 8 and Figure 5). Definite actors occur without auxiliary only slightly more often (42.7% in the group without the auxiliary and 38.9% in the group of be-impersonal). Also the Chi-squared test confirms that the distribution of reference types is not related to the auxiliary: $\chi 2$ (2, 500) = 0.48568, p = .7844.

***Table 8**. Distribution of reference types with and without auxiliary in Lithuanian*

	'be'	no auxiliary	Total
Definite	37 (38.9%)	173 (42.7%)	210
Generic	40 (42.1%)	157 (38.8%)	197
Indefinite	18 (18.9%)	75 (18.5%)	93
Total	95 (100%)	405 (100%)	500

***Figure 5**. Distribution of reference types with and without auxiliary in Lithuanian*



4.2.2. Verbs

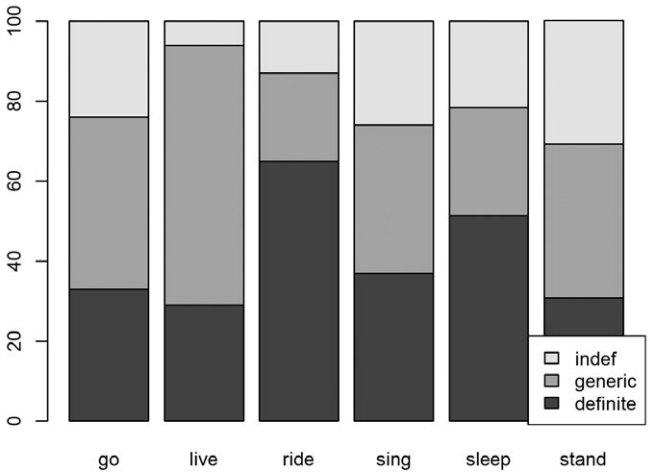
There were data from 6 verbs in our samples. Table 9 and Figure 6 show the distribution of definite, generic and indefinite reference types with the verbs.

Distribution of reference types in different verb lemmas differs widely: the impersonal passive construction with *gyventi* 'live' refers more often to a generic actor than other verbs (similarly to Latvian and Estonian). The passive of *važiuoti* 'ride' is used mostly when the actor is definite and specific. The differences in the distribution of reference types with different verb lexemes are statistically significant ($\chi 2(10, 500) = 66.305$, $p < .001$).

***Table 9**. Distribution of reference types with different verbs in Lithuanian*

	'go'	'live'	'ride'	'sing'	'sleep'	'stand'	Total
Definite	33	29	65	37	38	8	210
Generic	43	65	22	37	20	10	197
Indefinite	24	6	13	26	16	8	93
Total	100	100	100	100	74	26	500

***Figure 6**. Distribution of reference types with different verbs in Lithuanian*



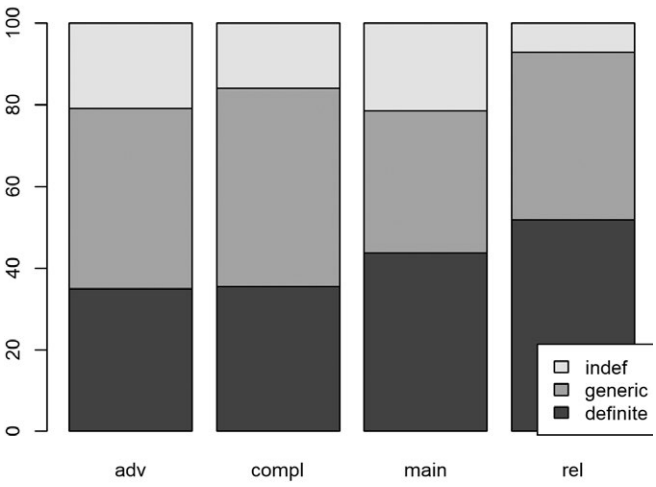
4.2.3. Clause types

Also in Lithuanian, more than half of the occurrences of impersonal passive constructions come from main clauses. The distribution of reference types in different clause types seems to be more equal than in Latvian. In relative clauses the definite use is more common than in others. According to the chi-squared test that was applied to Table 10 the relation between the reference types and clause types is not strong: $\chi 2$ (6, 500) = 13.371, $p < .03751$.

***Table 10**. Distribution of reference types in different types of clauses in Lithuanian*

	main clause	adverbial	complement	relative	Total
Definite	126 (43.8%)	15 (34.9%)	40 (35.4%)	29 (51.8%)	210
Generic	100 (34.7%)	19 (44.2%)	55 (48.7%)	23 (41.1%)	197
Indefinite	62 (21.5%)	9 (20.9%)	18 (15.9%)	4 (7.1%)	93
Total	288 (100%)	43 (100%)	113 (100%)	56 (100%)	500

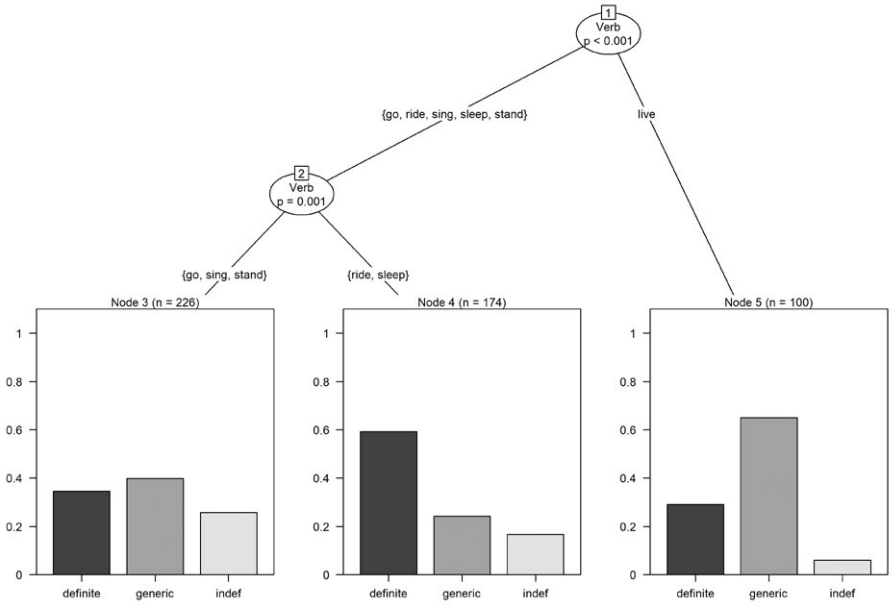
***Figure** 7. Distribution of reference types in different types of clauses in Lithuanian*



4.2.4. Interplay of variables

According to the conditional inference tree model (Figure 8), the most important variable in predicting the reference type in Lithuanian impersonal passives is the verb lemma: *gyventi* 'live' behaves differently from other verbs, allowing frequent generic use in the passive. Also the second split in the data is made by the predictor Verb lemma (Node 2). Other predictors do not seem to have an important role in making choices between definite, indefinite and generic reference. Clause type, which was an important predictor in Latvian, does not play a role.

Figure 8. *Conditional inference tree for Lithuanian subjectless passives*



As was mentioned above, Lithuanian can form subjectless passives with two participles: the *m*-participle and the *t*-participle. According to Geniušienė (2006, 40), generic agents may only occur with *m*-passives. Her definition of generic agency though is slightly different from ours: Geniušienė assumes generic agents only in truly generic (gnomic) statements (cf. (17)), while for us a generic agent may also refer to 'people (in general)', cf. example (36).

(36) Lithuanian (ltTenTen14)

Šimtmečiais	***gyven-t-a***	*be*	*vargonų.*
for_many_ages	live-PST.PP-NA	without	organ-GEN.PL

'They lived without organs for many ages [in the Christian Church].'

Though this study mainly focusses on *t*-passives, we also investigated the referential properties of deleted actors in *m*-passives of two Lithuanian intransitive verbs: *gyventi* 'live' and *važiuoti* 'ride'. From what is said in the literature we didn't expect to find any instances of *m*-passives with covert definite actors. However, our expectations proved to be wrong: after analysing 100 examples with each verb, we found 5 and 10 cases of definite covert actors with the *m*-passive of the verbs *gyventi* 'live' and *važiuoti* 'ride', respectively. An example with 'live' is given in (37). The context proved that the referents were a specific, known group of young actors.

(37) Lithuanian

Atsidavimas,	*kuriuo*	***gyven-a-m-a***	
devotion(M).NOM.SG	which.INS.SG.M	live-PRS-PP-NA	
scenoje,	*verčia*	*didžiuotis*	*jaunų*
scene.LOC.SG	force.PRS3	be_proud_of.INF	young.GEN.PL.M
aktorių	*gebėjimu*	*įsitraukti*	*į*
actor(M).GEN.PL	ability.INS.SG	engage.INF	in
bendrą	*darbą,*	*o*	*ne*
common.ACC.SG.M	work(M).ACC.SG	but	not
demonstruoti	*save*		
demonstrate.INF	self.ACC		

'The devotion with which **they live** on the scene makes us admire the young actors' ability to engage in common work rather than demonstrating themselves.'

Our small study of *m*-passives of the two verbs proves that although definite reference of covert actors in *m*-passives of intransitive verbs is possible, it is nevertheless very rare in comparison to *t*-passives (5–10% vs. 42%). Thus, the most important factor determining the reference type of covert actors in Lithuanian impersonal passives is the type of the participle: the *m*-participle specializes for generic reference, while the *t*-participle may to a large extent also be used for definite reference. This is confirmed by earlier studies. Geniušienė (2016, 276) postulates a dependence between the type of the omitted agent and the participle of the impersonal passive: *t*-participle is typically used with specific covert

agents (known or unknown), while *m*-participle is used with generic or indefinite agents.

4.3. Estonian

4.3.1. Auxiliaries

In the construction two auxiliaries can be used: *saama* 'get' and *olema* 'be'. get- and be-impersonals behave differently in terms of reference, as can be seen in Table 11 and Figure 9; the differences in Table 11 are statistically significant ($\chi 2$ (4, 576) = 247.34, $p < .001$).

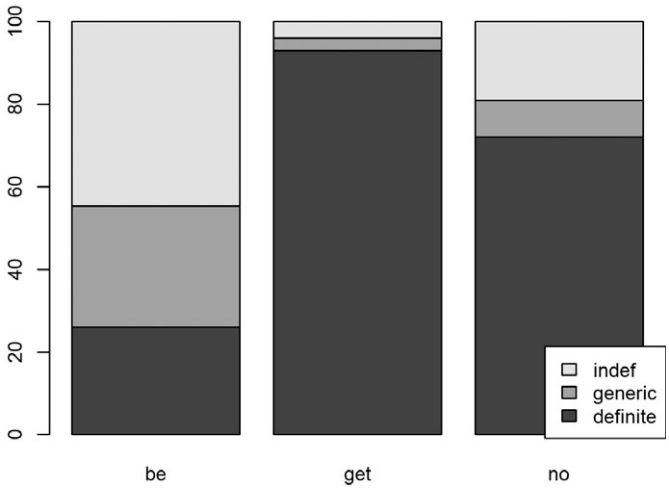
The Estonian get-impersonal is overwhelmingly used for specific, definite reference (93%), while be-impersonal is used mostly with indefinite (44.7%) or general referents (29.4%). Thus the distribution of reference types in the be-impersonal is closer to impersonal simple tenses than that of the get-impersonal, but still the differences from simple tenses are striking: in the be-impersonal, specific definite reference occurred in 26% of cases, while in the corpus data studied by Torn-Leesik and Vihman, only 7.8% and in parliament speeches 4.5% of the tokens had a definite actor (Torn-Leesik & Vihman 2010). The differences may be related to the nature of the different corpora (written vs. spoken), but also to the systematic difference between the use of Impersonal simple tenses (studied by Torn-Leesik and Vihman 2010) and compound tenses. Impersonal compound tenses are closer to the Passive in many respects in Estonian (see section 2.4.).

The clauses without the auxiliary are somewhat in between the two impersonal types with respect to the reference type; however, as the definite use is frequent, they are closer to the get-impersonal.

Table 11. *Distribution of reference types with different auxiliaries in Estonian*

	'be'	'get'	no auxiliary	Total
Definite	61 (26.0%)	254 (93.0%)	49 (72.1%)	364
Generic	69 (29.4%)	8 (2.9%)	6 (8.8%)	83
Indefinite	105 (44.7%)	11 (4.0%)	13 (19.1%)	129
Total	235 (100%)	273 (100%)	68 (100%)	576

Figure 9. *Distribution of reference types with different auxiliaries in Estonian*



4.3.2. Verbs

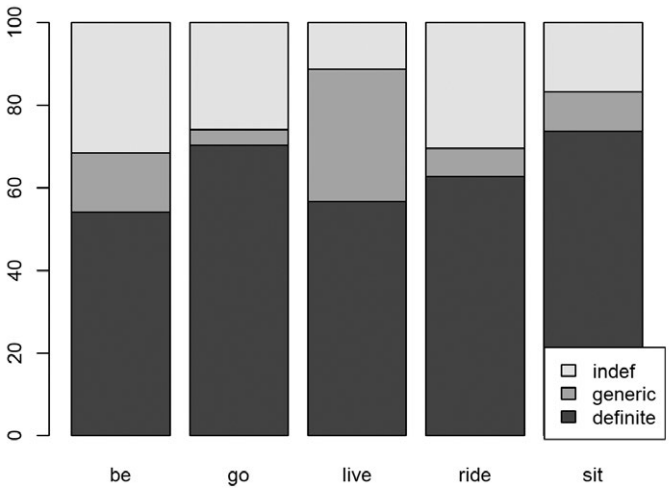
In Estonian, the impersonal constructions of five different verbs were analysed: *olema* 'be', *käima* 'go', *elama* 'live', *sõitma* 'ride, drive', and *istuma* 'sit'; see Table 12 and Figure 10. The difference in the distribution of reference types with different verbs is statistically significant ($\chi 2$ (8, 576) = 66.671, $p < .001$).

The Estonian data also shows a difference between *elama* 'live' and other verbs: *elama* is more often used for generic reference. Interestingly, the same does not apply to the verb *olema* 'be', which is often used for indefinite (vague) reference. Specific reference is more common with the verbs *istuma* 'sit', *käima* 'go, walk', *sõitma* 'ride'.

Table 12. *Distribution of reference types with different verbs in Estonian*

	'be'	'go, walk'	'live'	'ride'	'sit'	Total
Definite	60	76	80	64	84	364
Generic	16	4	45	7	11	83
Indefinite	35	28	16	31	19	129
Total	111	108	141	102	114	576

Figure 10. *Distribution of reference types with different verbs in Estonian*



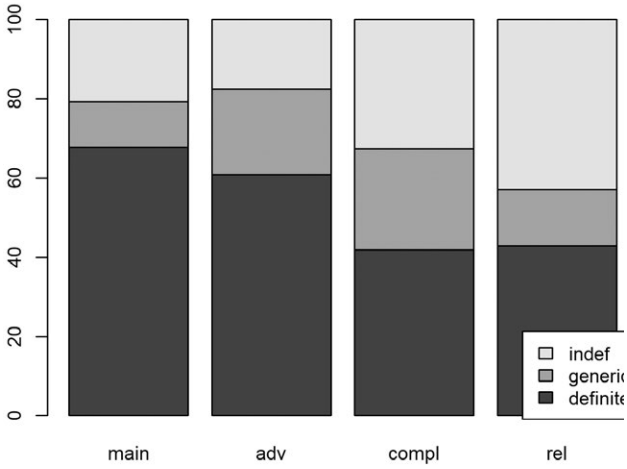
4.3.3. Clause types

There seem to be differences between the reference types also in different clause types: relative and complement clauses include more indefinite usages than others; definite reference is more common in main and adverbial clauses. See Table 13 and Figure 11. The differences in the distribution of reference types in different clause types are statistically significant ($\chi 2$ (6, 576) = 626.562, $p < .001$).

Table 13. *Distribution of reference types in different types of clauses in Estonian*

	main clause	adverbial	complement	relative	Total
Definite	272 (67.8%)	59 (60.8%)	18 (41.9%)	15 (42.9%)	364
Generic	46 (11.5%)	21 (21.6%)	11 (25.6%)	5 (14.3%)	83
Indefinite	83 (20.7%)	17 (17.5%)	14 (32.6%)	15 (42.9%)	129
Total	401 (100%)	97 (100%)	43 (100%)	35 (100%)	576

Figure 11. *Distribution of reference types in different types of clauses in Estonian*



4.3.4. Interplay of variables

The inferential conditional tree model (Figure 12) shows what are the most important predictors for the choice between general, indefinite and definite reference.

In the Estonian data most of the predictors (verb, auxiliary lemma and clause type) are important in the model, except polarity (mostly because there are not enough negative clauses in the data). In this, Estonian data particularly differs from Lithuanian, where only the verb lexeme made statistically significant splits in the data.

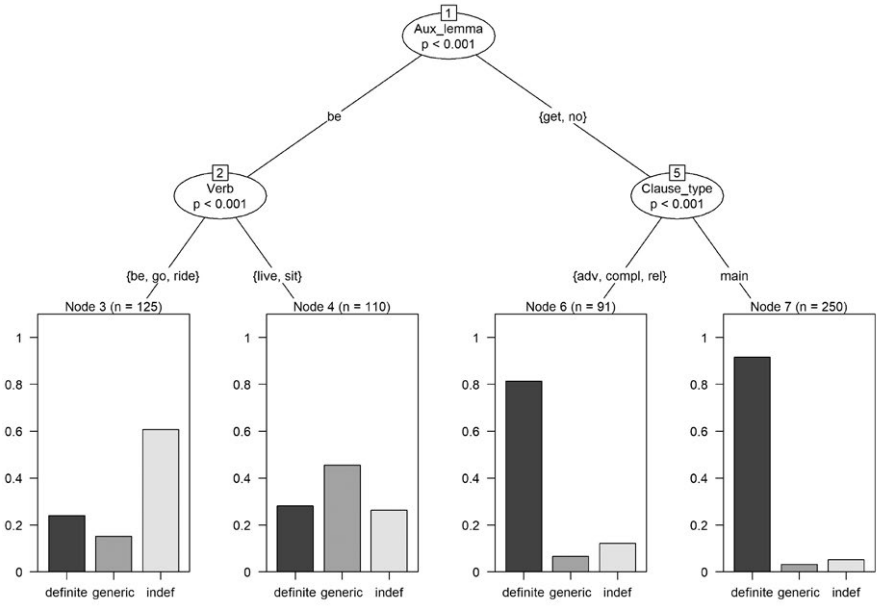
The first split is made by the predictor Aux_lemma: there is a clear difference (statistically most significant difference) between 'be' (one group, left) and 'get' + no aux (second group, right). As was shown already earlier, the get-impersonal is used overwhelmingly if the demoted actor is definite and specific (Nodes 6 and 7). Within the be-impersonals, the next split is done by the predictor Verb (Node 2).

4.4. Summary of quantitative results

All three languages have a voice-related impersonal construction which may refer generally (generic reference, 'everybody', 'all in the situation'), specifically (definite reference, persons which can be identified from the

context) or vaguely (indefinite, unidentifiable person or group of persons). Although we are dealing with semantic-pragmatic categories which are sometimes difficult to delimit, we still can draw a general picture on it.

Figure 12. *Conditional inference tree for Estonian impersonal constructions*



First of all, impersonal constructions in all three languages often refer to definite, specific actors. The rate of specific actors is highest in Estonian, mostly because of the get-impersonal, which seems to be specialized for definite and mostly first person reference (see Section 5.3). The Baltic languages have a higher rate of generic usages than Estonian. One of the possible reasons for that could be the fact that Estonian—like other Finnic languages – has another construction for generic reference—the so-called zero person construction.

The investigated constructions are used mostly in affirmative clauses in all three languages. In negated clauses, definite reference was common in Latvian, mostly with the verb *būt* 'be', but rare in Estonian and Lithuanian.

The impersonal passive construction in Latvian and Estonian may have two auxiliaries—'be' and 'get', and in both languages, they have different functions. In Estonian, the get-impersonal is used mostly for expressing action of specific, definite actors. The be-impersonal is used more with

indefinite and general actors and is therefore closer to impersonal simple forms. In Latvian, on the contrary, the get-impersonal is more often used for generic and indefinite reference, whereas the be-impersonal is used often for marking the action of definite, specific actors.

In all three languages the participle can also be used as an impersonal construction without any auxiliary. In Lithuanian we can observe that the distribution of generic, indefinite and definite reference is almost equal in clauses with or without the auxiliary, which makes us infer that we are dealing with variants of the same construction. Other factors (such as clause type and polarity) do not affect the distribution of reference types in Lithuanian either. The most important factor for the distribution of reference types in Lithuanian impersonal passives is the type of the participle: the *m*-participle is almost exclusively used for generic reference while the *t*-participle to a large extent may also be used for definite reference.

In Latvian, clauses without auxiliary are closer to the be-impersonal by allowing more definite uses. In Estonian, clauses without auxiliary are closer to get-impersonals, and also allow more definite uses.

In Latvian data, clause type also appeared to be another important predictor in the data: generic and indefinite uses are more often found in subordinated clauses, while in main clauses, definite uses are more common, especially in be-impersonals. In the other languages the differences between clause types were less important.

The lexical meaning of the verb may also affect how the passive impersonal is used: with the stative verb 'live' all three languages showed a tendency for referring to generic actors. Furthermore, the difference between the verb meaning 'work' and all other verbs in the sample was the strongest predictor in Latvian.

5. Further results and discussion: Why use an impersonal construction when the person is known?

In this section we will take a closer look at the covert actors with definite reference, analysing grammatical categories such as person, number, and tense, but most of all discussing the circumstances under which a passive or impersonal construction is used when the actor is known. We first report on each language separately and then draw conclusions based on a comparison of the three languages.

5.1. Latvian

In the investigated passive constructions of intransitive verbs, the predicate appears in various tenses, and the contextually recovered actor corresponds to various persons. However, there are some clear trends, which correlate with trends already seen in Section 4.1 and together can help us understand what triggers the use of an impersonal construction when the deleted actor is a known person. In this section, *the sample* refers to the subset of 358 observations classed as having a definite actor out of the whole sample of 700 observations (7 x 100 tokens) analyzed in Section 4.1.

For the analysis of tense forms used in impersonal passives we follow the traditional approach which associates forms with the auxiliary *tikt* 'get, become' with simple tenses (present, past, future) and forms with the auxiliary *būt* 'be' with perfect tenses. The preference of the auxiliary *būt* over *tikt* that was shown in Figure 1 above thus corresponds to a preference for perfect tenses over simple tenses. Recall that with the basic passive, the auxiliary *tikt* is more frequent than the auxiliary *būt*. Tentatively we also assume that the use of the passive participle without an auxiliary represents the same tense as the construction with the present tense of *būt*. In this interpretation, we may state that two-thirds of the examples in our sample represent the present perfect (235 of 358 = 65.64%). The next frequent tenses are simple past and simple present with 14.8% and 9.5%, respectively, followed by past perfect with 6.98%. The figures are given in Table 14.[13]

***Table 14**. Most frequent tense forms of Latvian impersonal passives with definite actors*

auxiliary	auxiliary tense	example with 'ride'	tense with PST.PP	
'be'	present	*ir braukts*	present perfect	132
no	-	*braukts*	present perfect	103
'get'	past	*tika braukts*	past tense	53

[13] Other forms of the auxiliary *būt* 'be' were the conditional (5 tokens) and one instance of a compound past perfect (*nebija bijis* + PST.PP), while other forms of the auxiliary *tikt* 'get' included 2 future forms, 2 evidential forms and 1 compound present perfect (*ir ticis* + PST.PP); these forms will not be considered further here.

auxiliary	auxiliary tense	example with 'ride'	tense with PST.PP	
'get'	present	*tiek braukts*	present tense	34
'be'	past	*bija braukts*	past perfect	25
'be'	other			6
'get'	other			5

The deleted actor of the predicates in our sample most often could be reconstructed as the speaker or a group including the speaker: these instances of a first person actor make up 61% of the sample (217 of 358), and first person singular alone accounts for 42% (149 of 358). In about 36% of observations the actor was third person (singular or plural, 128 of 358), while second person was relatively rare with 3.6% (13 of 358). When we look at individual verbs, two groups may be distinguished: the verbs 'sing' and 'work' behave differently from the rest in showing reference to a third person (plural) actor more often; see Table 15.

Table 15. *Person and number of definite actors in Latvian*[14]

	1SG	1PL	3SG	3PL	2SG	2PL	sum
'be'	39	9	11	9	1	3	0
'go'	22	12	6	9	2	0	0
'live'	22	5	4	2	1	0	0
'ride'	30	16	9	7	1	2	0
'sit'	31	11	8	4	2	1	0
	0	0	0	0	0	0	0
'sing'	0	9	10	25	0	0	0
'work'	5	6	6	18	0	0	0
	0	0	0	0	0	0	0
all verbs	**0**	**0**	**0**	**0**	**0**	**0**	**0**

[14] Note that 1SG etc. is not a grammatical category here, but stands for 'refers to the speaker'.

Before we try to explain the differences among verbs, we will discuss the most important functions in which the investigated constructions are used.

As shown in Table 14 above, the most frequent form of the passive constructions in our sample is the present perfect, and indeed a majority of uses reflect one of the two main functions of the Latvian Present Perfect (cf. Nau 2005): CURRENT RELEVANCE, the defining feature of the gram type perfect, and/or INDEFINITE PAST, also called EXPERIENTIAL PERFECT (Comrie 1976; Dahl 1985; Lindstedt 2000). Actually, these two meanings are not clearly distinguished, as the 'current relevance' may be more or less important (cf. Dahl & Hedin 2000, 291, who propose that current relevance is a graded concept), and the two functions may be combined (Lindstedt 2000, 369). Essentially, the construction expresses that the event—or more precisely, an event of this type, has taken place at least once in the past, or, when negated, that it has not occurred during a period lasting from some time in the past up to the current moment. Of course, the speaker will have a reason for making such a statement, so in one form or other it must be "relevant". It attests the actor's experience (38) or lack of experience (39) with a situation that is talked about.

(38) Latvian

Ar	*šo*	*kompāniju*	***ir***
with	DEM.ACC.SG	company.ACC.SG	be.PRS.3
braukts	*vairākas*	*reizes,*	*un*
ride.PST.PP.NA	several.ACC.PL.F	time.ACC.PL	and
problēmu	*nav*	*bijis.*	
problem.GEN.PL	NEG.be.3	be.PST.PA.SG.M	

'**I have travelled** with this company several times, and there have been no problems.' (implied: I can therefore recommend it)

(39) *Līdzsvars* *nesokas.*
balance.NOM.SG NEG.go_well.PRS.3

Ar	*tādu*	*kanoe*	***nav***
with	such.ACC.SG	canoe.NOM.SG	NEG.be.PRS.3

braukts.
ride.PST.PP.NA
'The balance doesn't work well. [Because] **I haven't been** in such a canoe (ever before).'

In positive statements, reference is typically made to more than one event. This finds its expression either in adverbials such as 'several times'

in (38), or in some kind of listing. For example, in (40) a list of countries where the activity took place is given. Another type often found in our sample is the listing of different activities, as in (41).

(40) Latvian
[*Sieviešu kora "Noktirne" dalībnieces ir ceļojušas arī pa pasauli* —]
dziedā-t-s *Anglijā,* *Vācijā* *un*
sing-PST.PP-NA England.LOC.SG Germany.LOC.SG and
Itālijā.
Italy.LOC.SG
'[The members of the women's choir *Noktirne* have also travelled the world —] (they have) **sung** in England, Germany and Italy.'

(41) *Ar* *šo* *somu* ***ir***
with DEF.ACC.SG bag.ACC.SG be.PRS.3
apceļo-t-a *Latvija,* *kā* *arī*
PVB.travel-PST.PP-SG.F Latvia.NOM as also
ārzemēs ***bū-t-s*** - *pa* *upēm* ***brauk-t-s,***
abroad be-PST.PP-NA over river.DAT.PL ride-PST.PP-NA
kalnos ***kāp-t-s,*** *uz* *velosipēda*
mountain.LOC.PL climb-PST.PP-NA on bicycle.GEN.SG
sēdē-t-s *un* *pa* *pilsētām* ***klīs-t-s.***
sit-PST.PP-NA and over city.DAT.PL wander-PST.PP-NA
'With this bag, **I have travelled** Latvia as well as **been** abroad—(I have) **boated** on rivers, **climbed** mountains, **sat** on a bike, and **wandered** about towns.'

In these examples, activities are named and listed as facts that have occurred and form part of the topical person's accumulated experience. As can be seen in the first clause of (41), the construction is also found with a basic (personal) passive, with a nominative subject following the passive participle. The construction exemplified in (40) and (41) is called CUMULATIVE-EXPERIENTIAL in Nau, Spraunienė & Žeimantienė (2020, this volume). An active present perfect is also sometimes used in such a function, but the passive seems to be more typical. This may be related to the fact that the impersonal passive is restricted to human actors (with very few exceptions, for example when speaking about pet animals) and can therefore be associated with human experience. The active is more neutral in this respect. Speaking of the 'experience' of an object, only the active present perfect can be used, as in (42); a passive could not be used,

even if it were clear from the context that we are talking about a specific bag. This semantic-pragmatic rule is also enforced by a grammatical fact: In line with general rules of reference (cf. Fraurud 1996), a non-human referent, even if known and topical, is more likely to be expressed with a full noun phrase or pronoun, which in turn triggers agreement, while a known and topical person may easily have zero expressions—as is the case with a passive predicate.

(42) Latvian

Līdz	*ar*	*to*	***šī***		***soma***	
together	with	DEM.ACC.SG	DEM.NOM.SG.F		bag.NOM.SG	
ir	***bijusi***		*ļoti*	*daudz*	*kur—*	*gan*
be.PRS.3	be.PST.PA.NOM.SG.F		very	much	where	ADD
oficiālās	*pieņemšanās,*		*gan*	*īru*		
official.LOC.PL.F	reception.LOC.PL		ADD	Irish		
pabos.						
pub.LOC.PL						

'Therefore **this bag has been** in many places—at official receptions as well as in Irish pubs.'

Less often temporal reference is not to individual points in the past, but the situation expressed by the participle has held for a whole time span (what is called PERFECT OF PERSISTENT SITUATION by Comrie 1976 and UNIVERSAL PERFECT by Dahl 1985). Again, the current relevance may be more or less salient. In example (43), the stated fact is noteworthy in itself, while in (44) it serves as the explanation for a current state.

(43) Latvian

Izrādās	*visu*	*gadu*	***ir***
turn_out.PST.3.RFL	all.ACC.SG	year.ACC.SG	be.PRS.3
brauk-t-s	*bez*	*apdrošināšanas.*	
ride-PST.PP-NA	without	insurance.GEN.SG	

'It turns out **I have been driving** without insurance the whole year.'

(44)

Bet	*ir*	*tāda*	*lieta*		*kā*
but	be.PRS.3	such.NOM.SG.F	thing.NOM.SG		as
pieradums.	*Pie*	*Windas*	***sēdē-t-s***		
habit.NOM.SG	at	Windows.GEN.SG	sit-PST.PP-NA		
jau	*no*	*3.1*	*laikiem.*		
already	from	3.1	time.DAT.PL		

'But there is such a thing as habit. **I have been working** with Windows since the times of version 3.1.' (= so I am used to it and reluctant to change to Linux)

Note however that Latvian does not use the perfect for a persistent state, and in the equivalents of clauses such as English *I have known him forever; she has lived here for three years*, the present tense is used. When the predicate is in the passive, the present tense of the auxiliary *tikt* is used in this situation; the present perfect is used only for negative statements; cf. (45).

(45) Latvian

Ļau	*vairāk*	*kā*	*gadu*		***tiek***
already	more	than	year.ACC.SG		AUX.PRS.3
dzīvo-t-s	*Podniekos*		*bet*	*ne*	*reizi*
live.PST.PP.NA	Podnieki.LOC.PL		but	NEG	time.ACC.SG
nav	***saņem-t-a***		*avīze.*		
NEG.be.PRS.3	receive-PST.PP-SG.F		gazette.NOM.SG		

'**I have lived** in Podnieki for more than a year, but **I haven't received** the gazette a single time.'

With the passive of intransitive verbs, meanings associated with the category of perfect (current relevance, indefinite past, persistent situation) are most often found with a first person (singular) actor, and they are typical for blogs, interviews and other registers where an author talks about what they have experienced. The passive as experiential perfect is also found in questions with reference to the addressee, but this is attested only a few times in our sample. With third person, the experiential perfect occurs when a report focuses on a specific person or group (as in 40). In such reports, however, past participles, passive as well as active, may be used in reportative meaning and lose the defining characteristic of perfects, 'non-narrativity'. In this function the participles are mainly used without an auxiliary. In (46), the passive predicate occurs in a context of speech report, and it refers to an event at a specific time. One may thus conclude that not all instances of a bare past participle represent the present perfect—or that the language specific category of the Latvian Present Perfect has uses outside of the gram type perfect. Occasionally such uses are also found in constructions with the auxiliary *būt* 'be'.

(46) Latvian
[*Silva Linarte izstādes atklāšanā atzina, ka katra izstāde mākslinieciem ir svētki un skrīverieši šos svētkus prot noorganizēt īpaši košus un sirsnīgus. Mākslinieces priecājās, ka cilvēki vēlas redzēt viņas radošos darbus, un atklāja, ka Skrīveros nav pirmo reizi.*]
Septiņdesmitajos *gados* *šajā* *pusē*
seventieth.LOC.PL.M year.LOC.PL DEM.LOC.SG part.LOC.SG
bū-t-s *Mākslas* *akadēmijas*
be-PST.PP-NA art.GEN.SG academy.GEN.SG
praksē, *kad* *šeit* ***izdevies*** *satikt*
practice.LOC.SG when here manage.PST.PA.NA.RFL meet.INF
ļoti *interesantus* *cilvēkus.*
very interesting.ACC.PL.M people.ACC.PL
'[At the opening of the exhibition, Silva Linarte acknowledged that each exhibition is a feast for the artists and that the people of Skrīveri were capable of organizing especially brilliant and heart-warming feasts. The artist [said she] was happy that people wanted to see her creative work and disclosed that this was not her first time in Skrīveri.]
In the seventies, **she was/had been** in this part during field practice [as a student] of the Academy of Arts, and **was lucky** to meet a lot of interesting people.'

The verb *izdoties* 'manage, be lucky' in the last clause of this example is reflexive and takes a dative experiencer as main argument (here not expressed). With such verbs, a past passive participle is not possible, therefore the active participle has to be used.

Another function where a passive or active past participle typically appears without auxiliary is to signal anteriority in dependent clauses. This function is attested with all persons and is not associated with definite actors—it is also frequent with generic reference, cf. example (31) in Section 3. In complement and relative clauses, the actor can usually be inferred from the main clause, as in (47), while in adverbial clauses, it must be retrieved from the context.

(47) Latvian
Ja *jūtat,* *ka* *par* *daudz* ***sēdēts,***
if feel.PRS.2PL that too much sit.PST.PP.NA
biežāk *izkustaties.*
more_often PVB.move.PRS.2PL.RFL
'If you feel that **you have been sitting** too much, stretch (your body) more often.'

For simultaneity, the passive participle is combined with the auxiliary *tikt*, usually in present tense, as in (48).

(48) Latvian
Reizēm *radās* *pārliecība,*
sometimes come.about.PST.3 conviction.NOM.SG
ka ***tiek*** ***ie-t-s*** *pareizajā*
that AUX.PRS.3 go-PST.PP-NA right.LOC.SG
virzienā.
direction.LOC.SG
'Sometimes I had the conviction that **I was going** in the right direction.'
(speaking about experiences during a training)

In independent clauses, the present tense is mostly used for habitual activities, or an activity continually performed in the present time ('I am now working on this task'). Another use of an impersonal passive with *tikt* in both present and past tense is found when one type of activity is contrasted to another, or more generally, is foregrounded. Though this type is not frequent, it is attested with several verbs and both plural and singular actors in first and third person; cf. (49).

(49) Latvian
Šogad *labākais* *laiks* *un*
this_year best.NOM.SG.M.DEF time.NOM.SG and
labākais *skrējiens,* *jo* *faktiski* *vienā*
best.NOM.SG.M.DEF run.NOM.SG for actually one.LOC.SG
tempā ***noskrēju*** *visu* *distanci*
speed.LOC.SG PVB.run.PST.1SG whole.ACC.SG lap.ACC.SG
(ie-t-s ***netika).***
go-PST.PP-NA NEG.AUX.PST.3
'(My) best time and the best run this year, for **I** actually **ran** the whole lap in one speed (**I did not walk**).'

In (49) the passive construction is reminiscent of an active construction with a cognate infinitive, cf. (50), which is conventionally used to put emphasis on a verb (for more on this construction cf. Nau 2019).

(50) Latvian (lvTenTen14)
[*Tāpat šajā posmā sarunāju ar sevi, ka līdz Gūtmaņa alas ēšanas punktam es aizskriešu kaut ļoti lēni,*]
bet *aizskriešu* ***ie-t*** ***ne-ie-š-u***
but PVB.run.FUT.1SG go-INF NEG-go-FUT-1SG

'[So at this stage I agreed with myself that up to the food station at the Gūtmaņa cave I would run, even if very slowly,] but **I would** run, **not walk**.'

In past tense, the covert actor of an impersonal passive construction most often is a group of persons, which may or may not include the speaker (12 instances were identified as 1PL and 24 as 3PL, against 8 of 1SG and 9 of 3SG). In these instances, the meaning is more similar to generic reference and may be derived from it. Also in German, where the impersonal passive usually has generic or indefinite reference, it is sometimes found with reference to a definite group of persons in a specific situation. Passive predicates in past tense may also occur in a kind of cumulative construction, listing activities that were performed by the respective group at a specific occasion. This contrasts with the cumulative-experiential construction with the present perfect (see above), where activities having taken place at some not specified points in the past are listed to attest a person's experience. With the past tense, listing of activities rather characterizes a situation, an event that is situated at a given time and place, and not its participants.

(51) Latvian
[*Spītējot rudenīgajam laikam, mazajai pādītei par godu*]

tika	*dūšīgi*	*dziedā-t-s*	*un*	*dejo-t-s,*
AUX.PST.3	heartily	sing-PST.PP-NA	and	dance-PST.PP-NA
ēs-t-s	*un*	*dzer-t-s.*		
eat-PST.PP-NA	and	drink-PST.PP-NA		

'[Defying the autumnal weather, in honour of the little godchild] we sang and danced, ate and drank heartily.' (reporting about a baptism party)

Coming back to differences between individual verbs: *dziedāt* 'sing' and *strādāt* 'work' are found in our sample more often in constructions with the auxiliary *tikt* than with the auxiliary *būt* or without auxiliary, thus, they are used more often in present or past tense than in a perfect tense. As shown above, constructions with past tense more often refer to a group of persons, while in constructions with the experiential perfect the covert actor most often is the speaker. This partly explains the difference in preferences for person and number displayed in Table 15 above.

However, why *dziedāt* 'sing' and *strādāt* 'work' should differ so much from the other five verbs, or why these other verbs should behave so much alike, is not easy to explain. Probably several factors play a role.

First, *dziedāt* 'sing' and *strādāt* 'work' almost always express unbounded activities, they are atelic. But also *dzīvot* 'live' and *sēdēt* 'sit' are atelic, and *iet* 'go' and *braukt* 'ride' may express atelic as well as telic movement. Telicity cannot be the deciding parameter, and neither can agentivity. One feature that the five verbs of the first group have in common and that distinguish them from 'sing' and 'work' is localization, a kind of boundedness in space. As Dahl & Hedin (2000, 389–390) remark, assertions about event types in the past generally need to be anchored in time and/or space. Constructions with the verbs 'be', 'go', 'ride', 'sit' as well as 'live' usually provide an anchor in space when there is no anchor in time (as the temporal reference is indefinite with the present perfect). This is most evident with 'be', which in the passive is almost exclusively[15] used in the meanings 'be at a certain place' and 'be at (take part in) a certain event'. The verbs 'go', 'ride' and 'sit' are related in that they express a (dis)placement of the main argument, which thus is not only an actor, but also an undergoer (theme). It is possible that these semantic features support the use of the passive participle in constructions with perfect meaning, especially the experiential perfect which correlates with first person. In addition, some of the constructions in the perfect are idiomatic, especially with 'be', for example *sen nav būts* x 'long time not been at x', which is strongly associated with first person.

5.2. Lithuanian

This section examines Lithuanian impersonal passives with covert definite actors in some detail.

***Table 16**. Person and number of covert definite actors in Lithuanian impersonal passives*

VERB	1SG	1PL	3SG	3PL	2SG	2PL	Sum
'LIVE'	8	4	12	6	—	—	30
'GO'	9	6	15	2	1	—	33

[15] In two examples in the sample, the past passive participle of 'be' is used in the construction *būt kopā* 'be together (with someone)', which still may be interpreted as a localization in a broader sense.

VERB	1SG	1PL	3SG	3PL	2SG	2PL	Sum
'SING'	2	—	24	11	—	—	37
'SLEEP'	14	14	5	5	—	—	38
'RIDE'	17	10	14	23	1	—	65
'STAND'	—	3	4	1	—	—	8
TOTAL	**50** **23.7%**	**37** **17.5%**	**74** **35%**	**48** **22.8%**	**2** **0.95%**	—	**211** **100%**

As shown in Table 16, most impersonal passives with covert definite actors refer to a 3rd person actor (122 or 57.8% of the cases); 1st person actors constitute a second large group (87 or 41.2%), while 2nd person actors only occur in 2 examples (0.95%) in our sample. Singular actors are more common than plural actors (126/59.7% and 85/40.3%, respectively). As far as different lexemes are concerned, all the verbs show a greater preference for 3rd person actor, with the exception of the verb *miegoti* 'sleep' which is predominantly used with 1st person actors. An explanation for this fact may be that the verb *miegoti* 'sleep' denotes an activity which is considered private—that's why it is more common for speakers to talk about their own sleeping than to discuss other people's sleeping.

In 82% of passives with implicit actors the auxiliary is omitted. In the remaining 18% of the examples a past tense auxiliary is used. No other tense form seems to be possible.

An example of a covert 2nd person actor (from an interview) is given in (52):

(52) Lithuanian

Į	*knygą –*	*kaip*	*liudija*	*publikacijos*
to	book.ACC.SG	as	witness.PRS3	publication.NOM.PL
bei	*įvairi*	*literatūrinė*	*veikla —*	
and	various.NOM.SG.F	literary.NOM.SG.F	activity(F).NOM.SG	
ei-t-a	*neskubriai,*	*atkakliai,*	*nesiblaškant.*	
go-PST.PP-NA	not_in_a_hurry	persistently	without_distraction	

'As witnessed by your publications and various literary activities, you **moved** towards [writing] your book slowly, persistently and without distraction.'

The passive verb in (52) denotes an activity or a process which lasted for some time in the past and finished shortly before the moment of speech (the sentence is from an interview with the author of the book after it has been published). A corresponding active would be in the past tense (*į knygą ... ėjote* to book.ACC.SG go.PST.PL2[16])

Examples with 1st person actors come from quotes and from texts written in 1st person (internet media articles, blogs, travel descriptions etc.). In (53) the speaker refers to himself with an impersonal passive:

(53) Lithuanian
[*Tokios pozicijos laikėsi ir A.Mitrulevičius, nors jis nepaneigė ketinąs kandidatuoti į Seimą.*]
„Kodėl ne? Juk ir mano amžius —
why NEG PTC PTC 1.SG.POSS age.NOM.SG
dar ne kliūtis. Patirties
yet NEG obstacle.NOM.SG experience.GEN.SG
sukaup-t-a**, tiek metų **gyven-t-a
PVB.gather-PST.PP-NA so_many year.GEN.PL live-PST.PP-NA
tarp žmonių, kurie dabar yra
among people[PL].GEN which.NOM.PL now be.PRS3
rinkėjai“, – LŽ aiškino jis.
elector.NOM.PL PN explain.PST3 3.NOM.SG.M
'[A. Mitrulevičius took this position as well, although he did not deny that he intended to stand for parliamentary elections.] "Why not? My age is by no means an obstacle. I **have gathered** experience; (for) many years I (**have**) **lived** among people who are now voters", he explained to the newspaper *Lietuvos Žinios*.'

The use of the passive in (53) enables the speaker to enumerate his qualities in a more modest way placing more emphasis on the actions rather than himself. The use of the passive makes the statement more generalized as it implies that anyone having these qualities can stand for parliamentary elections.

[16] The second person plural form of the verb is used as a polite form of address in Lithuanian.

The non-agreeing form *sukaupta* 'gathered' in (53) is an instance of a 'subject-weak' passive[17] of a transitive telic verb. It is a clear case of a present perfect with the meaning of current relevance. The second passive form of an intransitive state verb *gyventi* 'live' is ambiguous. If the speaker still lives among these people then the passive predicate can be interpreted as a perfect of persistent situation—this means that the past passive participle may have this meaning.[18] If he no longer lives there, the passive verb form denotes a past event which lasted for a long time in the past and terminated at some point before the moment of speech. A corresponding active verb form would be in the present tense (if the passive refers to an ongoing event) or in the simple past tense (if the event finished prior to the moment of speech).

(54) is an example of a covert actor (1st person plural) in a subordinate clause which is (at least partially) co-referential with the actor of the main clause. The deleted actor of the passive serves as a link to the preceding clause, making the text more concise and cohesive:

(54) Lithuanian

Pakeliui	*užtikome*	*du*	*objektus,*	*apie*
on_the_way	find.PST1.PL	two	object.ACC.PL	about
kuriuos,	*nežiūrint to,*	*kad*	*čia*	*ne kartą*
which.ACC.PL.M	in_spite_of	that	here	not_once
važiuo-t-a	*su*	*automobiliu,*	*nieko*	
drive-PST.PP-NA	with	car.INS.SG	nothing.GEN.SG	
nežinojom	*arba*	*jau*	*užmiršome.*	
NEG.know.PST.1PL	or	already	forget.PST.1PL	

[17] *Sukaupti* 'gather' is a transitive verb which may alternate between an accusative and a partitive (genitive) object. As argued by Holvoet and Semėnienė (2004, 25), the genitive case in partitive objects is a semantic case which is 'laid upon' the structural case, namely the accusative. Thus, partitive objects should be considered transitive objects on a par with accusative objects. Whether or not partitive objects are promoted to subjects in passive constructions is difficult to prove. In Nau, Spraunienė & Žeimantienė (2020, this volume), such constructions are regarded as instances of 'subject-weak passives'. Geniušienė (2016, 144–145) maintains that the distinction between subject and object in such constructions is neutralized and the constructions are 'intermediate' between subjectful and subjectless passives.

[18] Note that in the active, the present perfect in Lithuanian (as in Latvian) does not have the use of PERFECT OF PERSISTENT SITUATION; in the Lithuanian equivalents of clauses like *They've been waiting for an hour now* and *I have lived in Vilnius for 20 years already* the present tense is used, cf. *Jie laukia jau valandą* 3PL be.PRS3 wait.PRS3, *Vilniuje gyvenu jau 20 metų* Vilnius.LOC live.PRS.3 already 20 year.GEN.PL.

'On the way we found two places which we didn't know anything about or about which we had forgotten, in spite of the fact that **I/we had come** here by car several times.'

The co-referentiality of the actors of the main and the subordinate clauses is indeed an inference or a conversational implicature which may be cancelled. We can imagine that the actor of the active clause is the speaker plus (at least) one person and the actor of the passive clause is the speaker with someone else. Thus the reference of the deleted actor of the passive is to some extent indeterminate: It surely includes the speaker but the identity of his or her companion is not specified. The use of a corresponding active form instead of the passive would eliminate the possibility of such interpretation. The passive verb form denotes a recurrent past event which is anterior with respect to the events denoted by the active past tense verbs of the main clause. Thus, the passive predicate in (54) has anterior meaning. The past tense auxiliary is omitted as is common for Lithuanian passives. In a corresponding active form of the past perfect (*buvome važiavę* be.PST.1PL drive.PST.AP.1PL), the use of the auxiliary would be mandatory in order to express the anteriority meaning. Thus the passive enables a shorter way of expression in comparison to the active.

The motivation for using an impersonal passive in (53–54) is backgrounding of the actor and thereby achieving a stylistic effect, as the passive, due to its rarity, is more expressive than the active (cf. Geniušienė 2006, 44). The reference of the deleted actor of the passive may be ambiguous, which may serve the communicative purpose of the speaker.

As was mentioned above, impersonal passives with deleted third person actors are the most numerous in our material. A third person actor may be a reported speaker in a speech report:

(55) Lithuanian
[*Knygoje „gyvenanti" buvusi mokytoja Julija Kavaliauskienė sakė, kad skaitant šią knygą, sukilo liūdni, bet labai brangūs jaunystės prisiminimai,*]

kuomet	*pėsčiomis*	*iš*	*Musteikos*	*į*
when	on_foot	from	PN	to
Marcinkonis	*mokyklon*		***ei-t-a***,	*prieš*
PN	school.ILL.SG		go-PST.PP-NA	before
pamokas	*ilgoje*		*eilėje*	*duonos*
lesson.ACC.PL	long.LOC.SG		queue.LOC.SG	bread.GEN.SG
stovė-t-a.				
stand-PST.PP-NA				

[„Toks buvo laikmetis, kurį išgyveno visi mano kartos žmonės.“]
'[The ex-teacher Julija Kavaliauskienė, who 'is living' in the book, said that while reading the book sad but very precious memories from her youth arose in her mind,] when **she would go** on foot to school from Musteika to Marcinkonys and **would stand** in a long queue for bread before lessons. ["Such was the time which all the people of my generation experienced."]'

The passive forms in (55) refer to recurrent (habitual) actions in the past performed by the reported speaker. Such use of the passive pertains to the Cumulative construction (for details see Nau, Spraunienė & Žeimantienė, 2020, this volume). There is no current relevance, and the corresponding active forms would be in the simple past (*ėjo* go.PST.3, *stovėjo* stand.PST.3) or the habitual past tense (*eidavo* go.HAB.PST.3, *stovėdavo* stand.HAB.PST.3).

The referent of the deleted actor is singular (the reported speaker), but due to the use of the passive and because of the following sentence (*Toks buvo laikas* ... 'Such was the time ...'), the reference of the covert actor may also be interpreted as more generalised: It may comprise the speaker and all the people of her generation. If the corresponding active forms had been used instead of the passive, such an interpretation would have been lost. Thus, the use of the passive in (55) allows the reported speaker to present her own experience as a common experience of the whole generation.

Examples referring to types of recurrent past events or past events which lasted for a long time (i.e. representing the Cumulative construction) constitute approximately 45% of the data. Example (56) is different in that it clearly refers to a single past event. Examples of this group constitute approximately 40% of the data. The remaining 15% of the examples are either vague between the meaning of single vs. repeated event or represent cases where the distinction of single vs. repeated event is non-applicable.

(56) Lithuanian
[*Pasak jo, į įvykio vietą atskubėję žmonės stebėjosi, kad jis ir bendrakeleiviai liko sveiki,*]

nes	*mikroautobusas,*	*kuriuo*
because	minibus(M).NOM.SG	which.INS.SG.M

važiuo-t-a,
drive-PST.PP-NA
[*po avarijos tiko tik metalo laužui.*]
'[According to him, people who rushed to the place of accident were amazed that he and his passengers remained intact] because the minibus in which they **had driven** [could only be used for scrap after the accident.]'

In passives with covert definite actors, the actor is usually topical and well-established in the preceding context. In a corresponding active of (56) an anaphoric subject pronoun would be required (cf. *nes mikroautobusas, kuriuo **jie** važiavo* because minibus.(M)NOM.SG which.INS.SG.M **3PL** drive.PST.3). The effect of the use of an agentless passive is emphasis on the action, defocusing of the actor and a shorter expression. The deleted actor of the passive also provides topic continuity with respect to the previous discourse.

5.3. Estonian

As the quantitative analysis in Section 4.3.1 revealed that be-impersonals and get-impersonals have very different profiles, they will be analysed here in two separate sub-sections.

Constructions without an auxiliary, which were the least numerous, were shown to mostly resemble get-impersonals and will not receive a separate treatment. However, there is one meaning that is associated with the use of the bare passive participle: indirect evidentiality (quotative).

In example (57), the first clause has evidential meaning, having a bare active past participle as a main verb (*ol-nud* 'be'); in the subordinate clause it is a past passive participle (*käi-dud* 'go'). The actor of the second clause is an indefinite group of people – thus a typical referent of the implicit actor of Estonian Impersonal.

(57) Estonian

Liha	*aga*	*ol-nud*		*Kunda-s*	*sotsialismi*
meat.PAR	but	be-PST.AP		Kunda-INE	socialist.GEN
aja-l	*nii*	*palju,*	*et*	*kogunisti*	*Rakvere-st*
time-ADE	so	much	that	even	Rakvere-ELA
käi-dud	***se-da***	***ost-ma-s.***			
go-PST.PP	his-PAR	buy-SUP-INE			

'There was [allegedly] so much meat in Kunda in socialist times that even [people] from Rakvere **went** to buy it'

However, in our data there were only a couple of examples of evidential uses; thus, it is not an important factor in explaining the use of participles or impersonal pluperfect in general. Estonian mainly uses a special quotative mood as well as several other evidential strategies to express indirect evidentiality, including pluperfect and bare participles (see Kehayov 2008, Kehayov & Siegl 2006).

5.3.1. Be-impersonals

Be-impersonals are regular perfect and pluperfect forms of the Estonian morphological Impersonal, and therefore it can be expected that they behave similarly to synthetic forms of the impersonal also with respect to reference to implicit actors. Among our data, 44.7% of the be-impersonals (105/235) had an indefinite (vague) actor whose identity was not recoverable from the context, 29.3% (69/235) had a generic actor and only 26% had a specific, definite actor, recoverable from the context. This distribution differs from that attested in the simple tenses (see section 2.4), but even more so from the get-impersonals. When we look at the data more closely, we can easily notice that the be-impersonals also tend to express generalized and indefinite, non-specific events.

Another tendency in be-impersonals is related to tense: be-impersonals overwhelmingly include the auxiliary in the present tense (212 occurrences out of 235, i.e. 90.2%), preferring thus regular perfect forms.

Before turning to the uses with a definite actor, we would like to add a few words about indefinite usages. Even when the reference is vague, with the auxiliary *olema* 'be' we get a hint whether the implicit actor is a single person or a group: this is reflected in the number marking on the predicative complement.

In example (58) the predicative complement (*leebe-d* 'gentle-PL') is in the plural, thus an indefinite group of people are seen as an actor. In (59), the predicative complement (*aktiivne kasutaja* 'active user') is in the singular—the actor is an imaginary, unknown person.

(58) Estonian

Michali		*suhtes*	***on***	***ol-dud***
Michal.GEN		regard_to	be.PRS.3	be-PST.PP
ikka	*veel*	***väga***	***leebe-d***.	
PTC	PTC	very	gentle-PL	

'[They] have been very gentle to Michal.'

(59)

Ilmselt		*loe-b*	*natuke*	*nii*	*see,*	***kui***
apparently		count-3.SG	a_bit	PTC	this	how
aktiivne		***kasutaja***	***on***	***ol-dud***,	*kui*	
active		user	be.PRS.3	be-PST.PP	if	
ka	*see,*	*kas*	*varem*	*on*	*Nami-Nami*	
too	this	whether	earlier	be.PRS.3	Nami-Nami.GEN	

koolituse-l *käi-dud.*
training-ADE go-PST.PP
'Apparently it counts how active a user [someone] has been but also whether [someone] has been in Nami-Nami training.'

In the sample of the main verb *olema* 'be' the predicative complement occurred 14 times in plural and 15 times in singular, i.e. almost equally. This indicates that the plural is not a default value, the number being related to the number of the implicit actor.

Of the 61 observations where the actor was identified as a definite person, 36 (59%) referred to the speaker or a group including the speaker.

Be-impersonals with definite actors typically express events that take place over some time: they have some duration (longer processes) or express a series of (sub)events that are summarised from the present point of view. Thus they are used as instances of a typical perfect, which "indicates the continuing present relevance of a past situation" (Comrie 1976, 52). This use is expected since the impersonal compound forms that we have analysed in this paper are regular perfect and pluperfect forms, as in (60).

(60) Estonian
Selle *Järvamaa-lt* *pärit* *mehe-ga* *on*
this.GEN Järvamaa-ABL from man-COM be.PRS.3
koos *ela-tud* *kolmkümmend* *aasta-t* *ja*
together live-PST.PP thirty year-PAR and
see *ol-i* *esimene* *kord,* *kui /.../*
it be-PST.3SG first time when...
'With this man from Järvamaa she had lived together for thirty years and it was the first time that...'

When looking closer at the data, the two main functions of the perfect, CURRENT RELEVANCE and INDEFINITE PAST (EXPERIENTIAL PERFECT), are central in the data, similarly to Latvian (Section 5.1). Example (61) represents indefinite past: an event, or more likely a series of sub-events have taken place in the past, without referring to a particular occasion. Current relevance is obvious from the example (62), which explains the children's behavior by their living together with animals, which has lasted for a long time (*kogu aeg* 'all the time').

(61) Estonian
Meie *projektipartneri —* *Tripod Grupp OÜ —* *koolitaja-te-ga*
we.GEN project_partner.GEN Tripod Grupp OÜ trainer-PL-COM
on ***maha*** ***istu-tud*** *ja* *edasine* *plaan*
be.PRS.3 down sit-PST.PP and further plan
paika *pan-dud.*
place.ILL put-PST.PP
'With the trainers of our project partner Tripod Grupp OÜ, **we have sat down** and set out a plan.'

(62) *Tema* *arva-tes* *tulene-b* *pois-te*
s/he.GEN think-GER derive-PRS.3SG boy-PL.GEN
käitumine *ja* *armastus* *looma-de* *vastu*
behavior and love animal-GEN.PL towards
selle-st, *et* ***kogu*** ***aeg*** ***on*** ***looma-de***
this-ELA that all time be.PRS.3 animal-GEN.PL
keskel ***ela-tud****.*
among live-PST.PP
'In her opinion, the boys' behaviour and love for animals comes from the fact that [they] have lived among animals all the time.'

The motivation for using the impersonal construction thus seems to be foregrounding a situation that has lasted for some time and has some relevance in the present situation (as in 62). The duration of the situation or incremental nature of it (series of sub-events) can also be expressed with time adverbials, as in (63).

(63) Estonian
Ikka *kordi* *ja* *kordi* *on*
PTC time.PL.PAR and time.PL.PAR be.PRS.3
siit *mööda* *sõide-tud.*
here by drive-PST.PP
'[We] have driven by this place time after time.'

However, it seems that the impersonal perfect itself may indicate that the action has lasted long, or at least it can be inferred from clauses where the impersonal is not accompanied by any adverbials, as in (64).

(64) Estonian
Ol-dud ***ja*** ***ela-tud*** ***on***
be-PST.PP and live-PST.PP be.PRS.3

ning	*nüüd*	*on*	*aeg*	*otsi*	*kokku*
and	now	be.PRS.3	time	end.PL.PAR	together
tõmma-ta.					
pull-INF					

'I have existed and lived [for a long time] and now it is time to pull the ends together.'

In the next example (65) the impersonal perfect form refers to a single event of visiting Mount Elbrus, which probably took some time. However, here the author focuses on the completion of the event, and from the context it appears that the statement was made just after finishing visiting Elbrus. Thus this use can be related to the perfect of RECENT PAST (or 'hot news'), which is found in Estonian as well, although not very often (Metslang 1997).

(65)

Helista-si-n	*Magometi-le*	*ja*	*and-si-n*	*teada,*	
call-PST-1SG	Magomet-ALL	and	give-PST-1SG	know.INF	
et	***Elbruse-l***	***on***	***käi-dud.***		
that	Elbrus-ADE	be.PRS.3SG	go-PST.PP		

'I called to Magomet and let him know that [we] had just visited Mount Elbrus.'

But why, in these examples, is impersonal perfect preferred to regular active perfect forms?

One reason probably lies in the opportunity to focus more on the event itself rather than on the actor who is involved in the action and is given in the context.

Another possible reason is related to the meaning of past passive participles. Passive past participles tend to be inherently more 'resultative' than the active past participle: the passive past participle can function as a resultative adverb ('already') occurring without arguments; e.g. stating that a job is accomplished, one may say *Tehtud!* 'done', or answering to 'Did you go for lunch?' one may say *Juba käidud!* already go:PST.PP 'We already did' (Lindström & Tragel 2010). Thus it seems that the past passive participle has acquired aspectual meaning of perfectivity, which is not so evident with past active participles. The Impersonal perfect thus enables one to focus on the accomplishment of the action, as in the previous example (65).

5.3.2. Get-impersonals

Get-impersonals typically refer to specific, single events and not to long processes or multiple events. Get-impersonals can easily be replaced with simple past and active voice, compare (66) and (67). In this example the auxiliary 'get' occurs in the past tense and provides the additional meaning 'manage, succeed'.

(66) Estonian
Kui ***sa-i*** *lõpu-ks* *taevaskotta* *maha*
When get-PST.1SG end-TR Taevaskoda.ILL down
istu-tud *siis* ***muutu-si-n*** *turisti*
sit- PST.PP then change-PST-1SG tourist.GEN
atraktsiooni-ks.
attraction-TR
'When I finally managed to sit down in Taevaskoda, I turned into a tourist attraction.'

(67) *Kui* *lõpu-ks* *Taevaskotta* *maha* *istu-si-n,*
when end-TR Taevaskoda.ILL down sit-PST-1SG
siis...
then
'When I finally sat down in Taevaskoja, then...'

The construction thus refers to specific events that are determined in time and space. Also it has a specific, definite actor, although not expressed overtly. The actor is typically speaker-inclusive—out of 254 get-impersonals with a definite actor, 232 (91.3%) referred to the speaker or to a group where the speaker was involved. Constructions without auxiliary show the same trend: in 44 out of 49 (89.9%) examples where the actor was identifiable, it was a first person singular or plural, as in (68).

(68) Estonian
Seekord ***näg-i-n*** *Eestimaa-d* *Põhja-Läti*
this_time see-PST-1SG Estonia-PAR North-Latvia.GEN
poolt, *kus* *varem* *ainult* *auto-ga* *läbi*
from where earlier only car-COM through
sõide-tud*.*
drive-PST.PP
'This time I saw Estonia from the side of North-Latvia, where (I have) earlier only **driven** through by car.'

In (66) and (68), the identity of the actor is evident from the second clause that includes an active form with 1SG ending (*muutusi-n* 'I changed' in (66), and *nägi-n* 'I saw' in (68)).

However, it is often the case that the context does not explicitly point to a potential actor. The actor can be revealed by some specific context-related details. Such details are usually accessible only to the speaker/writer (or sometimes to a main protagonist, whose action is described in the text). Therefore, if there are no other potential referents in the context, such impersonal constructions get a 1st person interpretation, either in singular or plural, because normally the 1st person—who is at the same time the author of the text—is the only person who has access to such details (e.g. time, place or other adverbials that make the event specific). In (69), the adverbial *isiklikult* 'personally' indicates that the only person in the situation can be the speaker/writer himself.

(69) Estonian

Isiklikult	*sa-i*	*mitme-le*	*auto-le*	*abi-ks*
personally	get-PST.3SG	several-ALL	car-ALL	help-TR
ol-dud.				
be-PST.PP				

'Personally (I) got to help many cars.'

In the following example, there is no explicit hint about the actor in the context but still it is clear that the speaker/writer expresses his/her own experience, since the information is too detailed for expressing somebody else's experience (the example comes from a forum dedicated to American cars).

(70)

Ol-les	*Zo6-ga*	*käe*	*valge-ks*	*saa-nud,*
be-GER	Z06-COM	hand.GEN	white-TR	get-PST.AP
sa-i	***järgmise-na***	***500-hobujõulise***		
get-PST.3SG	next-ESS	500 horsepower.GEN		
kompressormootori-ga	***C4***	***rooli***	***istu-tud.***	
compressor_engine-COM	C4	wheel.ILL	sit-PST.PP	

'Having gained experience using the Z06, (I) sat down at the wheel of a C4 with a 500 horsepower compressor engine.'

The construction is thus specialised to express personal experience, mostly speaker's own experience. The essential part of the construction is *saama* 'get' in the past tense 3SG form: among 273 occurrences of the

get-impersonals in the data even 261 occurred in the past tense form. Among these past tense forms, 227 occurrences (87%) were used speaker-inclusively: reference to the 1SG 185 times and to 1PL 42 times; reference to the second person was done only once—to 2PL; reference to the 3SG 19 times and 3PL two times. Speaker-inclusivity has been mentioned in relation to the get-impersonal also by some earlier researchers (e.g. Aavik 1936, 84, Erelt 1990, 2017), although the construction has not gained much attention in Estonian linguistics.

Habicht & Tragel (2014) and Tragel & Habicht (2017) have found that in passive and impersonal constructions with *saama* 'get', the constructions typically have an additional meaning of 'success' or 'resultativity'. In addition to the speaker-inclusivity we can thus characterise the construction as providing a meaning of success: the speaker has managed to do something. This appears e.g. in example (66) at the beginning of this section.

The construction has been also mentioned in the context of negative politeness (Erelt 1990, Lindström 2010). Estonian negative politeness strategy includes avoiding (or at least reducing) open reference to interlocutors: to the speaker and to a listener (Erelt 2003, Keevallik 2005, Lindström 2010). Avoiding open reference to interlocutors is widely used especially in internet fora, where the participants do not know each other personally (Lindström 2010). The get-impersonal provides a good opportunity for self-reference without any explicit person marking and is probably therefore so frequent in our data.

Saama 'get' can sometimes be used in the present tense as well. However, in this case it is almost always accompanied either by some modal meaning or by a future reference. In (71), both the meaning of success and that of future reference appear (ongoing situation which lasts long). The implicit actor is a specific 3rd person, a protagonist of the journalist's story.

(71) Estonian

Praegu	*aga*	*pole*	*se-da*	*vaja,*
now	but	be.NEG	this-PAR	need
kuna	*ela-tud*	*saa-b*		*niigi.*
because	live-PST.PP	get-PRS.3SG		so

'But now s/he doesn't need it because s/he can live without it.'

The get-impersonal is used relatively rarely in the present tense—in our sample, there were only 12 instances of it. Its use seems to be more related to modal meanings of the verb *saama* than in the past tense, and also it does not have so clear specialisation in reference.

5.4. Some comparison of the languages

In the preceding subsections, we discussed details of the usage of impersonal constructions with a definite covert actor, and possible motivations for the choice of these constructions in the three languages of our study. As in Section 4, where we analysed the predictors of definite vs. indefinite or general actors, we find several common features as well as differences between the languages. The most important observations regard temporal reference, and the degree to which a construction is associated with the speaker or a group including the speaker.

In all three languages, definite covert actors are much more typical when the clause refers to an event in the past than when it refers to the present or the future. For Latvian, this preference could be clearly seen in the investigated material in the choice of auxiliary and its tense form (Table 15). For Estonian, we found that the construction with *saama* 'get', which is highly specialized to definite actors, appears mostly in past tense, whereas be-impersonals include the auxiliary in present tense mostly and have a lower rate of definite reference. Also the study by Torn-Leesik & Vihman (2010) revealed that definite actors are twice as frequent in simple past then in simple present tense. In Lithuanian, all investigated constructions with the *t*-participle have some kind of past time reference. Present tense is expressed with the *m*-participle, for which we investigated only a small control sample, as it overwhelmingly has generic reference. Thus, what the languages have in common is that in present tense, a voice-related impersonal construction is relatively rarely used with reference to a known actor. While this partly reflects the fact that present tense is used in general statements which would involve a generic actor (cf. Napoli's (2009) remark quoted above in Section 2.1), this is not the whole story. When it is possible to refer to one's own, or another known person's, past actions with an impersonal construction, why shouldn't this possibility be used likewise when talking about presently ongoing actions?[19] In the rare instances where Estonian *saama* was used in present tense, the construction usually had a modal reading. This again has a parallel in Lithuanian, where impersonal (but also personal) passives with the *m*-participle in the present tense may get a meaning

[19] We are grateful to Axel Holvoet for pointing out this question.

of possibility or necessity (see Nau, Spraunienė & Žeimantienė 2020, this volume). In Latvian, present tense (with the auxiliary *tikt* 'get, become') sometimes occurs with definite actors and reference to ongoing activities in present time, but this is rather rare.

With respect to past time reference, languages and individual constructions show significant differences. In Latvian and Estonian, constructions with the 'get' auxiliary refer to a specific event at a specific time in the past, while in all three languages constructions with a 'be' auxiliary refer always or predominantly to an indefinite past and to types rather than tokens of activities. In Latvian, the *be*-auxiliary is most often used in present tense and the construction represents the perfect. In Lithuanian, the auxiliary is in past tense and the construction represents past tense. Constructions without auxiliary behave like these types and respectively represent present perfect in Latvian, but mostly past tense in Lithuanian. In Estonian, like in Latvian, constructions with a 'be' auxiliary have perfect meaning, but those without auxiliary rather behave like the 'get' type. An interesting feature found in all three languages is that constructions with an auxiliary 'be' (and in Latvian and Lithuanian without auxiliary) typically involve a quantification of the event: emphasising its duration or incremental nature or stating its repetition.

There are more differences when we compare which of the constructions is more often used when the actor is a known person (as opposed to generic and indefinite actors), and whether there is a preference for speaker inclusion.

First person reference is especially pronounced in the Estonian impersonal with the 'get' auxiliary, where it was found in 91.3% of examples with definite reference (232 of 254). With the auxiliary 'be', which less often is used with definite reference, the first person was the referent in 59.0% of instances (36 of 61). This figure is similar to the Latvian average of all auxiliary types and all verbs (61%, 219 of 358). However, in Latvian there are significant differences between individual verbs. In contrast to Estonian, in Latvian first person reference is most common with the be-auxiliary, thus in the present perfect, not in past tense. Notwithstanding these differences with respect to auxiliary and tense, in both languages the construction which typically refers to the speaker is associated to personal experience. In Lithuanian, first person reference was found only in 40.8% of observations with a definite actor (86 of 211), while in 57.8% the referent was a third person.

The differences just discussed are summarized in Table 17.

***Table** 17. Reference to definite or indefinite past in language-specific constructions*

Language, construction	past time reference	definite actor	person, number
Ltv. 'be.PRS' + PST.PP (or no auxiliary) present perfect	indefinite often: repeated activity; current relevance	often	mostly first person singular > plural
Est. 'be.PRS' + PST.PP present perfect	indefinite activity enduring or repeated; current relevance	less often	slight preference for first person
Lith. 'be.PST' + PST.PP (or no auxiliary) past tense	indefinite typically repeated event no current relevance	often	slight preference for third person
Ltv. 'get.PST' + PST.PP past tense	definite single event or set of events no current relevance	not often	more often third person more often plural
Est. 'get.PST' + PST.PP past tense	definite single event	almost always	clear preference for first person

Constructions without an auxiliary or with the 'be'-auxiliary are in all three languages also used with the meaning of a relative tense, to signal anteriority to another event. Furthermore, in Latvian and Estonian constructions without an auxiliary can have reportative evidential function; this was however found rarely in our samples.

To sume up: we find similar meaning elements and similar tendencies of specialization across languages, but the languages differ in how they combine these elements and which construction shows a tendency how strongly. It is also worth stating that we did *not* find a shift from generic meaning to first person plural, as it is known from the Finnish and the Turkish impersonal.

6. Conclusions and implications for further cross-linguistic research

This study has revealed how voice-related impersonal constructions are used in the function of personal predicates, implicitly referring to a known, contextually given person. The existence of such uses, and the relative frequency with which they were found in the three investigated languages, challenges the view that impersonals and impersonal passives are only or overwhelmingly used with generic reference or when the actor is indefinite, vague or unknown. It also gives new input to discussions of the function of the passive in general, of passives (or impersonals) without object promotion, and of agent demotion. Importantly, we find counter evidence to the claim that "agents that are syntactically demoted are characteristically low in topicality" (Myhill 1997, 804)—in the data investigated by us, high topicality was a regular feature of the demoted agents.[20]

The claim made by Frajzyngier (1982) that impersonals and impersonal passives always have an indefinite human agent, is thus too strong. What is corroborated by our data is the restriction to human agents, and this seems to be important for the development of personal uses of the impersonal constructions. In all three languages we found that an important function of the constructions is to report or attest personal experiences, either of the speaker or of a third person protagonist of a report. Out of this general function, the languages developed more specific functions in individual constructions. In Latvian, the construction with the auxiliary *būt* 'be' is used most often as an experiential perfect, attesting that an event of the type named by the predicate has occurred at least once (but typically more than once) and is relevant for the current experience of this person. In Estonian, the construction with the auxiliary *saama* 'get' is used to report specific events in which the speaker took part. In Lithuanian, most prominent is a cumulative construction (also attested in the other two languages), where emphasis is laid on the duration, intensity or frequency of past events from the perspective of the protagonist. This may be associated with a habitual meaning.

[20] A similar point against Myhill's claim was made by Napoli (2009, 176)—*beati qui ante nos nostra dixerunt.*

The languages we analysed, two Baltic and one Balto-Finnic, have a long history of contacts and mutual influences. However, we do not assume that what we found is an areal phenomenon. There are a few studies on other languages with a similar topic and goal, and comparable results (cf. Pinkster 1992; Pieroni 2000; Napoli 2009, 2013 on Latin; Nakipoğlu-Demiralp 2001 on Turkish).

A correlation between past or perfect tense and definite actors of impersonal (passive) constructions was also found in Turkish (past tense of Impersonal develops 1PL meaning, Nakipoğlu-Demiralp 2001), Latin (definite agents are more frequent in Perfect than in Present tense, Pieroni 2000), and Finnish (the zero construction is used with definite reference in Past tense, Laitinen 2006). This may support the thesis that definite reference does not directly develop from a generic meaning (such as 'all' > 'we all' > 'we'), as generic meanings are rather associated with present tense, or atemporal statements.

Several researchers have stated what we also found in our study: the impersonal constructions are not so much used for agent defocusing as for verb focusing—as Pinkster (1992, 169) put it, the action involved gets promoted. This makes the construction (potentially) more expressive, which according to Geniušienė (2006, 44) is the main motivation for its use. This emphasis on the action correlates with the diverse variants of quantification that we often found in our material: the activity or state named by the verb is depicted as long-lasting or repetitive, or several activities are listed that together form the experience in question. Another function related to emphasising the verb was less often found: that of contrasting one action with another.

However, this 'promotion of the activity' does not directly explain the use with known actors. Napoli (2013) analyzed intransitive passives in Latin with an agent phrase and argued that the focus on the action may prepare the ground for a secondary focus of a re-introduced actor. As we investigated only constructions with covert actors, we cannot apply this explanation. Instead, we tentatively propose that the deletion of the actor opens the possibility to reconstruct 'who done it'. For this reconstruction, the listener or reader may use several clues. If the clause refers to specific past events, it is less likely that the actor is generic. If the utterance has relevance for a current point in the discourse, it is more likely to be associated with the topical person. When the use of an impersonal construction

with reference to a known actor gets conventionalized, language-specific associations between person (especially: speaker vs. third person), tense and construction type may emerge.

Another observation made by researchers of Latin and Turkish impersonal constructions is that there are significant lexical differences. In our quantitative analysis, whose results are reported in Section 4, we found that the verb lexeme is one of the most important predictors of the referentiality of the covert actor. These differences are however not easy to explain, as they do not follow directly from verbal semantic features such aspectuality, agentivity, volitionality. In all three investigated languages, the passive or impersonal of the verb meaning 'live' was less likely to be used with a known actor and more likely to have a generic reading. All languages showed a higher percentage of definite actors with at least one verb of movement/displacement ('ride' or 'go', or both). The behaviour of the verb 'be', on the other hand, differs widely among the three languages: in Latvian, it is the intransitive verb most often found in the passive with reference to a definite actor (typically the speaker), in Estonian it was in the middle of the sample, while in Lithuanian the past passive participle of 'be' never occurs in a passive construction, as it has specialized for the evidential function.

The most important predictors however were formal, language-specific features of various constructions within one language. In Lithuanian, the choice of the participle (*t*- or past vs. *m*- or present passive participle) distinguishes the two main morphological variants of passive constructions. With intransitive verbs, the covert actor of constructions with the *m*-participle is overwhelmingly (by 90% or more) generic or indefinite, while with the *t*-participle, we found reference to a definite actor in 211 out of 500 (42%) instances in our sample. In Estonian, constructions with the auxiliary *saama* 'get' specialize in their use as quasi-personal forms with speaker inclusion (over 90%), while with the auxiliary *olema* 'be' only 26% of constructions in our sample had a definite actor. Compared to a previous study by Torn-Leesik & Vihman (2010), these periphrastic forms of the Estonian Impersonal however are still more often used with definite actors than the synthetic forms (simple tense forms). In Latvian, the auxiliary also played an important role, but in contrast to Estonian it is the impersonal passive with the 'be' auxiliary that is most often found with a known actor, while constructions with the auxiliary *tikt* 'get (to),

become' on average showed no preference for one of the three reference types that we distinguished. Thus, we found not only language-specific, but also construction-specific tendencies.

Empirical studies of referential properties of a covert actor in voice-related impersonal constructions in more than one language are still rare. The similarities and differences we found investigating two Baltic languages and the genetically unrelated Estonian may inspire further cross-linguistic investigations, leading to a more differentiated understanding of impersonal constructions and how they get 'personal'.

Abbreviations

1 — first person, 2 — second person, 3 — third person, ACC — accusative, ABL — ablative, ACN — action noun, ADD — additive (particle), ADE — adessive, ADV — adverb, adverbial, ALL — allative, AOR — aorist, AUX — auxiliary, COM — comitative, COMP — comparative, COMPL — complement, DAT — dative, DEF — definite, DEM — demonstrative, ELA — elative, ESS — essive, F — feminine, FUT — future, GEN — genitive, GER — gerund, HAB — habitual, ILL — illative, INF — infinitive, IMP — imperative, INE — inessive, INF — infinitive, INS — instrumental, IPS — impersonal, LOC — locative, M — masculine, NA — non-agreement form (in Lithuanian and Latvian), NEG — negation, NOM — nominative, PA — active participle, PAR — partitive, PASS — passive, PL — plural, PN — proper name, POSS — possessive, PP — passive participle, PRS — present, PST — past, PSTP — past participle, PTC — particle, PVB — preverb, REL — relative, RFL — reflexive, SG — singular, SUP — supine, TR — translative

References

Aavik, Johannes. 1936. *Eesti õigekeelsuse õpik ja grammatika* [Textbook of Correct Usage and Grammar of Estonian]. Tartu: Noor-Eesti Kirjastus.

Alvre, Paul. 1993. Mõningaist passiivi erijoontest [Some characteristics of the passive]. *Keel ja Kirjandus* 36.7, 404–409.

Ambrazas, Vytautas *et al.* 2006. *Lithuanian Grammar.* Second revised edition. Vilnius: Baltos lankos.

Blevins, James P. 2003. Passives and impersonals. *Journal of Linguistics* 39, 473–520.

Blevins, James P. 2006. Passives and impersonals. In: Keith Brown, ed., *The Encyclopedia of Language and Linguistics.* Second edition, Amsterdam: Elsevier, Vol. 9, 236–239.

Cennamo, Michela. 2014. Passive and impersonal reflexives in the Italian dialects. Synchronic and diacronic aspects. In: Paola Benincà, Adam Ledgeway & Nigel Vincent, eds. *Diachrony and Dialects. Grammatical Change in the Dialects of Italy.* Oxford: Oxford University Press, 71–95.

Cennamo, Michela. 2016. Voice. In: Martin Maiden & Adam Ledgeway, eds. *The Oxford Guide to the Romance Languages.* Oxford: Oxford University Press, 967–980. Online publication https://doi.org/10.1093/acprof:oso/9780199677108.003.0060

Christen, Simon. 1995. *Morphologische und syntaktische Eigenschaften des Subjekts im Litauischen.* Inauguraldissertation, Universität Bern.

Comrie, Bernard. 1976. *Aspect: An Introduction to the Study of Verbal Aspect and Related Problems.* Cambridge: Cambridge University Press.

Creissels, Denis. 2018. La typologie générale des constructions impersonnelles et les constructions impersonnelles du Français. In: *6e Congrès Mondial de Linguistique Française. SHS Web of Conferences* 46 (2018): 15001. Online publication https://doi.org/10.1051/shsconf/20184615001.

Creissels, Denis. 2019. *Impersonal constructions in typological perspective.* Paper read at the Sixteenth Conference on Typology and Grammar for Young Scholars, St Petersburg, 21–23 November 2019.

Dahl, Östen. 1985. *Tense and Aspect Systems.* Oxford-New York: Blackwell.

Dahl, Östen & Eva Hedin. 2000. Current relevance and event reference. In: Östen Dahl, ed. *Tense and Aspect in the Languages of Europe.* Berlin: Mouton de Gruyter, 385–401.

Endzelin, J[ānis]. 1923. *Lettische Grammatik.* Heidelberg: Winter.

Erelt, Mati. 1979. *Eesti lihtlause probleeme* [Questions of Estonian simple sentences]. Tallinn: Eesti Raamat.

Erelt, Mati. 1990. *Kõneleja ja kuulaja kaudse võimalusi eesti keeles* [The possibilities of expressing the speaker and the listener in an indirect way in Estonian]. *Keel ja Kirjandus* 33.1, 35–39.

Erelt, Mati, Reet Kasik, Helle Metslang, Henno Rajandi, Kristiina Ross, Henn Saari, Kaja Tael & Silvi Vare. 1993. *Eesti keele grammatika* II. *Süntaks* [Grammar of Estonian: Syntax]. Tallinn, Estonia: Eesti Teaduste Akadeemia Keele ja Kirjanduse Instituut.

Erelt, Mati. 2003. Syntax. In: Mati Erelt, ed., *Estonian Language* (Linguistica Uralica Supplementary Series, 1). Tallinn: Estonian Academy Publishers, 93–129.

Erelt, Mati. 2017. Öeldis [Predicate]. In: Mati Erelt & Helle Metslang, eds., *Eesti keele süntaks.* Tartu: Tartu University Press, 93–239.

Frajzyngier, Zygmunt. 1982. Indefinite agent, passive and impersonal passive. *Lingua* 58.3, 267–290.

Fraurud, Kari. 1996. Cognitive ontology and NP form. In: Thorstein Fretheim & Jeanette K. Gundel, eds., *Reference and Reference Accessibility.* Amsterdam-Philadelphia: John Benjamins, 65–87.

Geniušienė, Emma Š. 2006. Passives in Lithuanian (in comparison with Russian). In: Werner Abraham & Larisa Leisiö, eds., *Passivization and Typology: Form and Function.* Amsterdam-Philadelphia: John Benjamins, 29–61.

Geniušienė, Emma Š. 2016. *Passive Constructions in Lithuanian. Selected Works of Emma Geniušienė.* Edited by Anna Kibort & Nijolė Maskaliūnienė. Amsterdam-Philadelphia: John Benjamins.

Gast, Volker & Johan van der Auwera. 2013. Towards a distributional typology of human impersonal pronouns, based on data from European languages. In: Dik Bakker & Martin Haspelmath, eds., *Languages Across Boundaries. Studies in Memory of Anna Siewierska.* Berlin: De Gruyter Mouton, 119–158.

Giacalone Ramat, Anna & Andrea Sansò. 2007. The spread and decline of indefinite 'man'-constructions in European languages: An areal perspective. In: Paolo Ramat & Elisa Roma, eds., *Europe and the Mediterranean as Linguistic Areas: Convergences from a Historical and Typological Perspective.* Amsterdam-Philadelphia: John Benjamins, 95–131.

Habicht, Külli & Ilona Tragel. 2014. *Verbiga saama väljendatud leksikaalsed kategooriad ja konstruktsioonid* [Lexical categories and constructions with the verb *saama* ('get') in written Estonian]. *Keel ja Kirjandus* 57.11, 826–844.

Haspelmath, Martin. 1990. The grammaticization of passive morphology. *Studies in Language* 14.1, 25–72.

Heine, Bernd & Tania Kuteva. 2006. *The Changing Languages of Europe.* Oxford: Oxford University Press.

Helasvuo, Marja-Liisa. 2006. Passive—personal or impersonal? Finnish perspectives. In: Marja-Liisa Helasvuo & Lyle Campbell, eds., *Grammar From the Human Perspective: Case, Space and Person in Finnish.* Amsterdam-Philadelphia: John Benjamins, 233–255.

Helasvuo, Marja-Liisa & Maria Vilkuna. 2008. Impersonal is personal: Finnish perspectives. *Transactions of the Philological Society* 106.2, 216–245. Online publication https://doi.org/10.1111/j.1467-968X.2008.00208.x.

Holvoet, Axel. 1995. Indefinite zero subjects in Latvian. *Linguistica Baltica* 4, 153–161.

Holvoet, Axel. 2001a. Impersonals and passives in Baltic and Finnic. In: Östen Dahl & Maria Koptjevskaja-Tamm, eds,. *Circum-Baltic Languages.* Vol. 2: *Grammar and Typology.* Amsterdam-Philadelphia: John Benjamins, 363–389.

Holvoet, Axel. 2001b. *Studies in the Latvian verb.* Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.

Holvoet, Axel. 2007. *Mood and Modality in Baltic.* Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.

Holvoet, Axel. 2015. Latvian passives—personal, impersonal and evidential. In: Axel Holvoet & Nicole Nau, eds., *Voice and Argument Structure in Baltic.* Amsterdam-Philadelphia: John Benjamins, 367–394.

Holvoet, Axel & Loreta Semėnienė. 2004. Linksnio teorijos pagrindai [Basics of case theory]. In: Axel Holvoet & Loreta Semėnienė, eds., *Gramatinių kategorijų tyrimai* [Studies in grammatical categories]. Vilnius: Lietuvių kalbos institutas, 11–31.

Hothorn, Torsten, Kurt Hornik & Achim Zeileis. 2006. Unbiased recursive partitioning: A conditional inference framework. *Journal of Computational and Graphical Statistics* 15.3, 651–674.

Jakubíček, Miloš, Adam Kilgarrif, Vojtěch Kovář, Pavel Rychlý & Vít Suchomel. 2013. The TenTen Corpus Family. *7th International Corpus Linguistics Conference* CL, 125–127. Available online at https://www.sketchengine.eu/wp-content/uploads/The_TenTen_Corpus_2013.pdf [accessed 16.11.2019].

Jokela, Hanna 2012. *Nollapersoonalause suomessa ja virossa. Tutkimus kirjoitetun kielen aineistosta* [The Zero Person Clause in Finnish and Estonian. Studies of Written Language Material]. Turku University Press.

Kalme, Vilma & Gunta Smiltniece. 2001. *Latviešu literārās valodas vārddarināšana un morfoloģija. Lokāmās vārdšķiras* [Standard Latvian Word Formation and Morphology. Decinable Parts of Speech]. Liepāja: Liepājas Pedagoģijas akadēmija.

Keevallik, Leelo. 2005. Politeness in Estonia: A matter of fact style. In: Leo Hickey & Miranda Stewart, eds., *Politeness in Europe.* Bristol-Blue Ridge Summit: Multilingual Matters, 203–217.

Kehayov, Petar. 2008. *An Areal-Typological Perspective to Evidentiality: the Cases of the Balkan and Baltic Linguistic Areas.* Dissertationes Linguisticae Universitatis Tartuensis 10. Tartu: Tartu University Press.

Kehayov, Petar & Florian Siegl. 2006. The evidential past participle in Estonian reconsidered. *Études finno-ougriennes,* 38, 75–117.

Kehayov, Petar & Reeli Torn-Leesik. 2009. Modal verbs in Balto-Finnic. In: Björn Hansen & Ferdinand de Haan, eds., *Modals in the Languages of Europe.* Berlin-New York: Mouton de Gruyter, 363–401.

Kärkkäinen, Elise, Marja-Leena Sorjonen & Marja-Liisa Helasvuo. 2007. Discourse structure. In: Timothy Shopen, ed., *Language Typology and Syntactic Description.* Vol. iii*: Complex Constructions.* Cambridge: Cambridge University Press, 301–371.

Keenan, Edward L. & Matthew S. Dryer. 2007. Passive in the world's languages. In: Timothy Shopen, ed., *Language Typology and Syntactic Description.* Vol. i: *Clause Structure.* Cambridge: Cambridge University Press, 325–361.

Laanemets, Anu. 2012. *Passiv i moderne dansk, norsk og svensk. Et korpusbaseret studie af tale- og skriftsprog* [Passive in modern Danish, Norvegian and Swedish. A Corpus-Based Study of Spoken and Written Language]. Doctoral dissertation. University of Tartu Press.

Laitinen, Lea. 2006. Zero person in Finnish: a grammatical resource for construing human reference. In: Marja-Liisa Helasvuo & Lyle Campbell, eds., *Grammar from the Human Perspective: Case, Space and Person in Finnish.* Amsterdam-Philadelphia: John Benjamins, 209–231.

Lavine, James E. 2006. Is there a passive evidential strategy in Lithuanian? In: Jacqueline Bunting *et al.*, eds., *Papers from the 42nd Meeting of the Chicago Linguistic Society,* 41–55.

Lindstedt, Jouku. 2000. The perfect—aspectual, temporal and evidential. In: Östen Dahl, ed., *Tense and Aspect in the Languages of Europe.* Berlin: Mouton de Gruyter, 366–383.

Lindström, Liina. 2010. *Kõnelejale ja kuulajale viitamise vältimise strateegiaid eesti keeles* [Strategies for avoiding explicit reference to the speaker and the addressee in Estonian]. *Emakeele Seltsi aastaraamat* 55, 88–118.

Lindström, Liina. 2013. Between Finnic and Indo-European: Variation and change in the Estonian experiencer-object construction. In: Ilja A. Seržant & Leonid Kulikov, eds., *The Diachronic Typology of Non-Canonical Subjects.* Amsterdam/Philadelphia: John Benjamins, 139–162.

Lindström, Liina. 2015. Subjecthood of the agent argument in Estonian passive constructions. In: Marja-Liisa Helasvuo & Tuomas Huumo, eds., *Subjects in Constructions—Canonical and Non-Canonical.* Amsterdam-Philadelphia: John Benjamins, 141–173.

Lindström, Liina & Ilona Tragel. 2007. Eesti keele impersonaali ja seisundipassiivi vahekorrast adessiivargumendi kasutuse põhjal [Estonian impersonal and stative passive, and the use of the adessive argument]. *Keel ja Kirjandus* 50.7, 532–553.

Lindström, Liina & Ilona Tragel. 2010. The possessive perfect construction in Estonian. *Folia Linguistica* 44.2, 371–400.

lvg 2013 = *Latviešu valodas gramatika* [Latvian Grammar]. Rīga: lu Latviešu valodas institūts, 2013.

Malchukov, Andrej & Anna Siewierska. 2011. Introduction. In: Andrej Malchukow & Anna Siewierska, eds., *Impersonal Constructions: A Cross-Linguistic Perspective.* Amsterdam-Philadelphia: John Benjamins, 1–15.

Metslang, Helle. 1997. On the use of the Estonian past tense forms through the last one hundred years. In: Mati Erelt, ed., *Estonian: Typological Studies ii.* Publications of the Department of Estonian of the University of Tartu 8. Tartu, 98–145.

mllvg i, 1959 = *Mūsdienu latviešu literārās valodas grammatika.* i. *Fonētika un morfoloģija* [Grammar of Modern Literary Latvian i. Phonetics and morphology], ed. E. Sokols. Rīga: lpsr Zinātņu akadēmijas izdevniecība.

Myhill, John. 1997. Toward a functional typology of agent defocusing. *Linguistics* 35.5, 799–844. Online publication https://doi.org/10.1515/ling.1997.35.5.799.

Nakipoğlu-Demiralp, Mine. 2001. The referential properties of the implicit arguments of impersonal passive constructions. In: Eser Erguvanlı Taylan, ed., *The Verb in Turkish.* Amsterdam-Philadelphia: John Benjamins, 129–50.

Napoli, Maria. 2009. Impersonal passivization and agentivity in Latin. In: Stephanie Jamison, Craig Melchert & Brent Vine, eds., *Proceedings of the 20th Annual ucla Indo-European Conference, Los-Angeles October 31–November 01/2008*, Bremen: Hempen, 163–178.

Napoli, Maria. 2013. Semantic constraints on the Latin impersonal passive. In: Elly van Gelderen, Jóhanna Barðdal & Michela Cennamo, eds., *Argument Structure in Flux: The Naples-Capri Papers.* Amsterdam-Philadelphia: John Benjamins, 373–404.

Nau, Nicole. 2005. *Perfekts un saliktā tagadne latviešu valodā* [Perfect and compound present in Latvian]. *Baltu filoloģija* 14.2, 137–154.

Nau, Nicole. 2019. The Latvian continuative construction *runāt vienā runāšanā* 'talk in one talking' = 'keep talking'. *Baltic Linguistics* 10: *Minor Grams in Baltic, Slavonic and Fennic* (thematic issue), 21–63. Online publication https://doi.org/10.32798/bl.360

Nau, Nicole & Axel Holvoet. 2015. Voice in Baltic: An overview. In: Axel Holvoet & Nicole Nau, ed., *Voice and Argument Structure in Baltic.* Amsterdam-Philadelphia: John Benjamins, 1–36.

Nau, Nicole, Birutė Spraunienė & Vaiva Žeimantienė. 2020. The passive family in Baltic. *Baltic Linguistics* 11: *Studies in the Voice Domain in Baltic and Its Neighbours* (thematic issue), 27-128.

Ogren, David. 2015. Differential object marking in Estonian: prototypes, variation, and construction-specificity. *SKY Journal of Linguistics*, 28, 277–312.

Pajusalu, Renate. 2015. Hidden subjects in conversation: Estonian personless verb forms as referential devices. In: Marja-Liisa Helasvuo & Tuomas Huumo, eds., *Subjects in Constructions—Canonical and Non-Canonical.* Amsterdam-Philadelphia: John Benjamins, 43–72.

Pieroni, Silvia. 2000. Agents in Latin impersonal passives. *Mnemosyne: A Journal of Classical Studies* 53.3, 288–301. Online publication https://doi.org/10.1163/156852500510606.

Pinkster, Harm. 1992. The Latin impersonal passive. *Mnemosyne, Fourth Series, 45, no. 2,* 159–77.

Pihlak, Ants. 1993. *A Comparative Study of Voice in Estonian.* Eesti Sisekaitse Akadeemia toimetised. Tallinn.

Rajandi, Henno. 1999 [1968]. *Eesti impersonaali ja passiivi süntaks* [Syntax of Estonian Impersonal and Passive]. Eesti Keele Instituudi toimetised 3. Tallinn.

Shibani, Masayoshi. 1985. Passives and related constructions: A prototype analysis. *Language* 61.4, 821–48. Online publication https://doi.org/10.2307/414491.

Shore, Susanna. 1988. On the so-called Finnish passive. *Word* 39, 151–176.

Siewierska, Anna. 2008. Impersonal constructions in grammatical theory. *Transactions of the Philological Society* 106.2, 115–336. Online publication https://doi.org/10.1111/j.1467-968X.2008.00211.x.

Siewierska, Anna & Dik Bakker. 2012. Passive agents: prototypical vs. canonical passives. In: Dunstan Brown, Marina Chumakina & Greville G. Corbett, eds., *Canonical Morphology and Syntax.* Oxford: Oxford University Press, 151–189. Online publication https://doi.org/10.1093/acprof:oso/9780199604326.003.0007.

Spraunienė, Birutė, Auksė Razanovaitė & Erika Jasionytė. 2015. Solving the Puzzle of the Lithuanian passive. In: Axel Holvoet & Nicole Nau, eds., *Voice and Argument Structure in Baltic.* Amsterdam-Philadelphia: John Benjamins, 323–366.

Torn, Reeli. 2002. The Status of the Passive in English and Estonian. In: H. Hendriks, ed., *rceal Working Papers in English and Applied Linguistics 7.* Cambridge: Research Centre for English and Applied Linguistics, 81–106.

Torn, Reeli. 2006. *poolt*-tarind eesti keele impersonaalis ja passiivis [The *poolt* 'by'-phrase in the Estonian impersonal and passive]. In: Pille Penjam, ed., *Lause argumentstruktuur* [Clause Argument Structure]. Tartu Ülikooli eesti keele õppetooli preprindid 2. Tartu, 108–121.

Torn-Leesik, Reeli. 2009. The voice system of Estonian. *stuf Language Typology and Universals* 62.1–2, 72–90.

Torn-Leesik, Reeli. 2016. *An Investigation of Voice Constructions in Estonian.* Dissertationes linguisticae universitatis tartuensis 26. Tartu: Tartu University Press.

Torn-Leesik, Reeli & Virve-Anneli Vihman. 2010. The use of impersonals in spoken Estonian. *sky Journal of Linguistics* 23, 301–343.

Tragel, Ilona & Külli Habicht. 2017. *Saama*-verb grammatilistes konstruktsioonides [The verb *saama* 'get' in grammatical constructions]. *Keel ja Kirjandus* 60.1, 22–40.

Uiboaed, Kristel. 2013. *Verbiühendid eesti murretes* [Verbal Constructions in Estonian Dialects] (Dissertationes philologiae estonicae Universitatis Tartuensis, 34). Tartu: Tartu University Press.

Van Valin, Robert D. 2001. *An Introduction to Syntax.* Cambridge: Cambridge University Press.

Vihman, Virve-Anneli. 2007. Impersonaliseeritud impersonaal kui konstruktsioonitasandi grammatisatsioon [Impersonalised impersonals: construction-level grammaticalisation]. *Emakeele Seltsi aastaraamat* 52, 158–178.

Vihman, Virve-Anneli. 2008. Construction-based interpretation of implicit arguments. In: Nikki Adams, Adam Cooper, Fey Parrill & Thomas Wier, eds., *Proceedings from the 40th Annual Meeting of the Chicago Linguistic Society.* Chicago: Chicago University Press, 225–239.

Viits, Tiit-Rein. 2003. Rise and development of the Estonian language. In: Mati Erelt., ed., *Estonian Language* (Linguistica Uralica Supplementary Series, 1). Tallinn: Estonian Academy Publishers, 130–230.

VISK = Auli Hakulinen, Maria Vilkuna, Riita Korhonen, Vesa Koivisto, Tarja Riitta Heinonen & Irja Alho. 2008. *Iso suomen kielioppi. Verkkoversio* [Comprehensive Grammar of Finnish, Internet version]. Helsinki: Suomalaisen Kirjallisuuden Seura. Available at: http://scripta.kotus.fi/visk. Last visited: 7.7.2020.

Wiedemann, Ferdinand Johann 1875. *Grammatik der ehstnischen Sprache, zunächst wie sie in Mittelehstland gesprochen wird, mit Berücksichtigung der anderen Dialekte.* St. Pétersbourg: Académie Impériale des Sciences.

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