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# ACQUISITION OF THE IMPERSONAL VOICE BY AN ESTONIAN CHILD

**Reeli Torn-Leesik and Maigi Vija**

**Keywords:** language acquisition; impersonal and passive constructions; Estonian

## Introduction

This article describes the form and function of the first impersonal voice constructions by Andreas, an Estonian boy, from the age of 1;7.24 to 3;1.13.<sup>1</sup> The data for the analysis were drawn from the single most extensive sample within the Estonian subcorpus of the CHILDES database.<sup>2</sup>

The aim of this study is to gain an insight into the process of acquisition of the impersonal voice in Estonian by following the development of impersonal forms in Andreas's everyday conversations. It describes the relations between impersonal forms in his and his caregivers' language and identifies typical contexts in which impersonal forms occur. The study is novel in that it targets the Estonian impersonal voice, which has not been investigated in this specific context before. Most studies on the acquisition of voice constructions focus on languages other than Estonian and have in general concentrated on passive voice constructions. Similarly to the passive, the Estonian impersonal is a subject-oriented construction. It is different from the passive in that it does not reduce the valency of the verb but merely constrains argument realization. One of the most detailed studies of the acquisition of Estonian morphology is the doctoral thesis of Reili Argus (2008), which, however, concentrates mainly on the categories of case, tense, and aspect. The comprehension of Estonian voice constructions by 4- to 6-year-old children has been studied to a certain extent by Vija *et al.* (2009) as well as by Kunnari *et al.* (2010). However, no detailed longitudinal studies focusing on Estonian voice constructions have as yet appeared.

We first provide a brief description of voice constructions in Estonian and discuss certain issues that have emerged from previous studies on the acquisition of voice constructions in general. We then offer an analysis of Andreas's data. The analysis

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focuses on the pattern of acquisition of impersonal forms, on the verbs that are used in the impersonal voice, on the functions of the impersonal forms, and on the input that the child receives.

### Voice Constructions in Estonian

Descriptions of grammatical voice typically focus on the opposition between the active and passive voice. This is well attested in Indo-European languages (e.g. Germanic, Romance and Slavic languages) and, due to the influence of English and other Indo-European languages, had often been considered as basic (cf. Langacker & Munro 1975; Siewierska 1984). Examples of this opposition are given in (1) and (2):

- (1) English  
 a. *The boy killed a fly.* (active)  
 b. *A fly was killed (by the boy).* (passive)
- (2) German  
 a. *Der Junge küsste das Mädchen.* (active)  
 b. *Das Mädchen wurde (von dem Jungen) geküsst.* (passive)

While in some languages which have this opposition, such as English, passivization is possible only with transitive verbs, in others, such as German, passivization can be applied to intransitive verbs as well, as illustrated in (3):

- (3)  
 a. *Die jungen Leute haben in der Küche geraucht.* (active)  
 b. *In der Küche wurde (von den jungen Leuten) geraucht.* (passive)

However, another kind of voice opposition (attested in Balto-Finnic, Celtic, some Slavic languages, and in certain non-European languages) is described in terms of the opposition between personal and impersonal voice. Although passives and impersonals are both subject-oriented and may perform a similar communicative function, they are, in fact, different constructions with different morphosyntactic constraints. For instance, while the passive is a valency-reducing operation that demotes the subject of the active clause, impersonalization merely constrains argument realization and does not affect the valency of the verb (see Blevins 2003; Torn-Leesik 2009). Moreover, impersonals can be formed from unaccusative verbs that lack passive counterparts (Perlmutter 1978). In addition, the impersonal typically refers to an indefinite human agent (Frajzyngier 1982; Siewierska 1984).

The Estonian voice system includes both of these oppositions. Yet, the impersonal is often regarded as the basic voice construction in Estonian (Viitso 1998). The Estonian impersonal can be formed both with intransitive and transitive verbs as well as with unaccusatives and modals (Torn 2002; Torn-Leesik 2007, 2009), while the periphrastic 'resultative' passive accepts only transitive verbs as its input. The 'resultative' passive is considered an innovation based on the participial passives of Indo-European languages (Haspelmath 1990, p. 49; Vihman 2007, pp. 169–70).<sup>3</sup> The paradigms of the impersonal and the passive are given in Table 1.

The Estonian impersonal has no overt syntactic subject and is marked with an unambiguous synthetic verbal affix in simple tenses (*-(t/d)akse* for present and *-t/di* for

**TABLE 1.** Paradigms of the impersonal and the resultative passive

	Impersonal		Resultative passive
PRES	<i>Jooſtakſe</i> run:IMPERS:PRES yard:INE 'One runs in the yard.'	<i>Loetakſe</i> read:IMPERS:PRES books:PART 'One reads books.'	<i>Raamatud on loetud.</i> books:NOM be:PRES.3 read:PASS:PTC 'Books are read.'
PAST	<i>Jooſti</i> run:IMPERS:PAST yard:INE 'One ran in the yard.'	<i>Loeti</i> read:IMPERS:PRES books:PART 'One read books.'	<i>Raamatud olid loetud.</i> books:NOM be:PRES:3PL read:PASS:PTC 'Books were read.'
PFCT	<i>On jooſtud õues.</i> be:PRES.3 run:PASS:PTC yard:INE 'One has run in the yard.'	<i>On loetud raamatuid.</i> be:PRES.3 read:PASS:PTC books:PART 'One has read books.'	<i>Raamatud on olnud loetud.</i> books:NOM be:PRES.3 be:ACT:PTC read:PASS:PTC 'Books have been read.'
PLP	<i>Oli jooſtud õues.</i> be:PRES.3 run:PASS:PTC yard:INE 'One had run in the yard.'	<i>Oli loetud raamatuid.</i> be:PAST.3 read:PASS:PTC books:PART 'One had read books.'	<i>Raamatud olid olnud loetud.</i> books:NOM be:PRES:3PL be:ACT:PTC read:PASS:PTC 'Books had been read.'

past (see Table 1)). In perfect tenses, it is formed with the auxiliary *olema* 'be' and the *tud* participle of the main verb, which are also the building blocks of the passive construction.<sup>4</sup> In the case of transitive verbs, impersonalization does not entail the promotion of the object to subject position: the object retains its object properties, that is, it remains in the partitive, which is the default object case.<sup>5</sup> Total objects take the nominative case (Erelt *et al.* 1993; Rajandi 1999 [1968]), but they do not trigger verb agreement and take the partitive case when negated. This shows that in spite of their appearance in the nominative, they are not subjects of the impersonal clause. In the case of impersonalization, the highest argument of the input verb must be capable of referring to humans (Torn 2002).

The implicit argument of the impersonal verb typically refers to an indefinite actor whose identity is unknown or is left unspecified for considerations of relevance or politeness. The impersonal verb may also express the generic person, that is, any potential performer of the action or activity. Such impersonal clauses with universal general referents resemble the German *man* and French *on* clauses, which denote general, nonspecific agents (cf. Siewierska 1984, p. 115). These two interpretations of the implicit argument of the impersonal are the main ones and both are common in written Estonian (Erelt *et al.* 1993). In addition to these uses, a more recent study by Torn-Leesik and Vihman (2010) on the impersonal in spoken Estonian shows that in spoken language the impersonal may also be used for salient or identifiable referents. In this case, the impersonal cannot be seen to be employed to either mask the actor or generalize its referent. These uses seem to have various motives. For example, they can be selected for reasons of politeness or to express certain stylistic nuances.

The use of an agent adverbial, which is most often formed with the help of a genitive noun and the postposition *poolt* 'by', is generally considered unacceptable in the impersonal construction in Standard Estonian.<sup>6</sup> If used, it is subject to several restrictions. For instance, Torn (2006b), examining written Estonian, shows that *poolt* agentive phrases typically include a collective noun that refers to a corporate group of people, such as the police, the government, a jury, etc. When a singular noun or a personal name is used, it generally refers to an authority or an institution (e.g. the Prime Minister). The uses of *poolt* agentive phrases in the impersonal in spoken Estonian are rare (Torn-Leesik & Vihman 2010). *Poolt* agentive phrases in the passive are also relatively infrequent and considered an influence of Indo-European languages (Nemvalts 1998).

### *The acquisition of voice constructions*

Several studies of the acquisition of voice constructions have focused on languages other than Estonian. For instance, studies on the English passive have shown that English children acquire the passive voice at a relatively advanced age and go through different stages in the acquisition process. In one of the earliest studies on the acquisition of the English passive, Turner and Rommetveit (1967) show that English-speaking children start first by imitating passive constructions, which is then followed by comprehension and production. Israel *et al.* (2001) identify three stages in the development of passives in English-speaking children aged 1;8–5;0 by analyzing longitudinal data from the CHILDES corpus. They claim that the children showed a

gradual progression from adjectival stative passives to dynamic passives, with a transition stage involving equivocal use of passive participles. This may be explained by the fact that children seem to perceive first the result of a process or event and, therefore, are not able to connect it with the finished activity or with the agent, which then leads to an inability to use the agentive phrase (Guasti 2004, pp. 251–2).

On the other hand, there are languages such as Zulu, Sesotho, Tagalog, etc., where the passive voice is acquired relatively early (for references, see Gil 2006). For instance, Gil (2006), who deals specifically with the Jakarta dialect of Indonesian, states that its speakers acquire passive constructions at the age of two, in some cases even earlier. He attributes this early acquisition to the formal simplicity of the passive marker and its high frequency in adult input.

These explanations are also reflected in different theoretical approaches seeking to account for variation in the age of acquisition of voice constructions. For instance, generative studies of the passive voice have led researchers to suggest that passive constructions appear in child language relatively late because the comprehension and production of the passive requires complex transformations. For instance, with reference to English, Fox and Grodzinsky (1998) claim that agentive passives are not fully acquired by the age of five, even if children at the age of 3;6–5;5 may comprehend sentences with A-chains.<sup>7</sup> However, they still may have problems with non-truncated non-actional passives. On the other hand, usage-based approaches suggest that the passive is acquired later than some other structures due to its infrequent occurrence in the input language that children are exposed to. If special training is provided, a child is able to produce passive sentences even before the age of three (Brooks & Tomasello 1999). Studies of other European languages indicate that if passive constructions are frequent in the input, they tend to appear earlier in the child's language (for an overview, see Tomasello 2003, pp. 173–75).

Previous studies on the acquisition of Estonian (Argus 2008; Vija 2000) have shown that the grammatical category of voice is not among the first verbal categories that Estonian children acquire (voice is preceded by the categories of tense and person). However, the study by Vija *et al.* (2009) as well as the study by Kunnari *et al.* (2010), both of which tested the comprehension of voice constructions in children aged 4–6, clearly indicate that Estonian children comprehend impersonals well already at the age of four.<sup>8</sup> Estonian agentless impersonal sentences may resemble English agentless sentences in that the verb has only one argument. However, the former are always dynamic in meaning and, in the case of transitive verbs, do not involve object promotion. As has been stated above, the impersonal does not affect the valency of the verb but simply demotes the actor argument. Thus, the Estonian impersonal may be structurally simpler and easier for children to acquire. The use of the *poolt* 'by' agentive phrase in the impersonal is not common in spoken Estonian (Torn-Leesik & Vihman 2010) and, as Vija *et al.* (2009) show, its use may even cause problems for a child in correctly interpreting the impersonal clause.<sup>9</sup>

To complement previous studies on the acquisition of Estonian and the comprehension of Estonian impersonal constructions by children, the present study focuses on the production and first appearance of impersonals in everyday conversations between the caregiver and the child. The study is based on longitudinal material.

**TABLE 2.** Estonian children in the CHILDES database

Code	Child's name	The age of the child during recording	Total length of recordings
ANN	Annabel	1;10.8–2;1	1 hour, 45 min
CAR	Carlos	1;7.17–1;10.29	2 hours, 15 min
CHI	Hendrik	1;8.13–2;5.30	3 hours
MAR	Mariliis	2;5.7–2;8.10	2 hours, 50 min
SAN	Sandor	1;2.0–2;2.22	4 hours, 5 min
TAI	Taimo	1;11.13–1;5.8	5 hours, 5 min
STE	Stella	0;11.22–1;6.4	6 hours
HEL	Helen	1;1.17–1;10.17	3 hours, 10 min
HEN	Henri	2;2.12–2;3.8	1 hour, 30 min
CHI	Andreas	1;7.24–3;1.13	74 hours

### Data: The Estonian Subcorpus of the CHILDES Database

The data analyzed in this article were taken from the Estonian subcorpus of the CHILDES database, which contains recordings of ten Estonian children, as summarized in Table 2.

The detailed overview of the appearance and use of impersonals is based on Andreas's data. This choice was determined by a considerably greater length and higher frequency of his recordings (74 hours) as compared with those of the other children in the database. Andreas was recorded regularly, each session lasting approximately 1 hour. The recordings began when Andreas was 1;7.24 and ended at the age of 3;1.13.

### The Impersonal Voice in Andreas's Data

Andreas's recordings were divided into four different age periods. The periods of 2;0–2;1 and 2;3–3;0 are presented separately because no recordings were made at the age of 2;1–2;3 (see Table 3). Andreas was the first child in his family and his recordings include the input from both his mother and his father, although the mother's role is definitely greater. The data were analyzed using the CLAN program. We were looking for affirmative and negative present and past synthetic impersonal forms (e.g. *tehakse* 'one does' and *tehti* 'one did') as well as for periphrastic impersonal/passive auxiliary and participle constructions in the form of '*on* + *-tud*' and '*oli* + *-tud*'. The analysis does not distinguish between impersonal and resultative passive periphrastic forms (see Table 1 for isomorphism between impersonal and passive forms). Table 3 summarizes the different forms found in Andreas's and his parents' speech. The (–) mark indicates that the father did not participate in the recordings.

The first impersonal forms appear in Andreas's speech at the age of 2;0–2;1. These forms can be seen as indirect imitations of the forms that Andreas has heard in the input from his mother and are often not quite adult-like. During this period

**TABLE 3.** Different voice constructions in Andreas's data

Age	Different forms of voice constructions		Andreas	Mother	Father
1;7-2;0 (7 hours)	present	affirm	0	3	–
		neg	0	0	–
	past	affirm	0	0	–
		neg	0	0	–
		' <i>on + -tud</i> '	0	0	–
	' <i>oli + -tud</i> '	0	0	–	
2;0-2;1 (30 hours)	present	affirm	4(1)	26	13
		neg	0	8	4
	past	affirm	0	4	1
		neg	0	1	0
		' <i>on + -tud</i> '	9(3)	16	8
	' <i>oli + -tud</i> '	0	1	1	
2;3-3;0 (7 hours)	present	affirm	7	8	–
		neg	0	3	–
	past	affirm	0	2	–
		neg	0	0	–
		' <i>on + -tud</i> '	3	4	–
	' <i>oli + -tud</i> '	0	0	–	
3;0-3;1 (30 hours)	present	affirm	84	97	10
		neg	3	13	1
	past	affirm	4	10	2
		neg	1	2	0
		' <i>on + -tud</i> '	36	39	3
	' <i>oli + -tud</i> '	4	2	0	

only one impersonal form out of four is adult-like (2;0.23: *piima kallatakse* 'one pours milk'), and out of nine periphrastic '*on + -tud*' constructions three are used with the copula *on* 'is' (see Table 3). A number of his impersonal forms represent truncations: Andreas reduces four-syllable forms to three syllables (*küsitakse* > \**küsitak*, *teritatud* > \**teritud*, *kirjutatud* > \**kirjutud*) and three-syllable ones to two syllables (*juuakse* > \**juuaks*).

The analysis of the forms (\**küsitak*, \**küsitassega*, \**juuaks*, \**teritud*, \**kirjutut*) and their contexts as used by Andreas at the age of 2;0-2;1 shows that these forms often do not fit into a coherent conversation.<sup>10</sup> It is highly likely that Andreas recalls these forms from some previous input and that they may have been learned as chunks. In any event, they are unexpected in the context of the ongoing conversation, as illustrated in examples (4)–(5).

(4)<sup>11</sup>

CHI: *Andsu [= Andreas] kopsib haamriga.*

'Andsu [= Andreas] is hammering.'

MOT: *kas sa remondid seda tooli või ma viin selle minema.*

'are you repairing this chair or shall I take it away?'

CHI: *jah.*

'yes.'

- MOT: *palun*.  
'please.'
- FAT: *viime siis ära eks*.  
'let's take it away then.'
- CHI: *palun [+ I]*<sup>12</sup>  
'please [+ I]'
- CHI: *palun küsitak* [\*/[= *küsitakse*].  
please ask:IMPER:PRES<sup>13</sup>  
"please", one asks.'
- CHI: *anna siia kruvikeela* [: *kruvikeeraja*].  
'give me the screwdriver.'
- CHI: <*anna siia kruvikeela* [: *kruvikeeraja*]> [+ SR]<sup>14</sup>.  
'give me the screwdriver.' (Andreas, 2;0.1)

(5)

- MOT: *liblikas*.  
'a butterfly.'
- CHI: *emme noonistas* [: *joonistas*].  
'mommy drew.'
- CHI: *emme, noonista* [: *joonista*] *seda*.  
'mommy, draw this.'
- MOT: *jõehobu juba joonistasin*.  
'I already drew a hippo.'
- CHI: *teist väarvi* [: *värvi*].  
'another color.'
- CHI: <*teist väarvi* [: *värvi*]> [+ SR].  
'another color.'
- MOT: *aga sa ei tahtnud kriite*.  
'but you didn't want crayons.'
- MOT: *mul on ainult harilik pliiats praegu*.  
'I only have a lead pencil now.'
- CHI: *teritad* [\*/[= *teritatud*].  
sharpen:PASS:PTC  
'sharpened.'
- MOT: *teritatud*                      *on*                      *see, jaa*.  
sharpen:PASS:PTC                      be:PRES:3                      this                      yes  
'yes, it is sharpened.'
- MOT: *teritatud*,                      *siis on hea joonistada, kui on*  
sharpen:PASS:PTC                      then                      be:PRES:3                      good draw:INF                      if be:PRES:3  
*teritatud*.  
sharpen:PASS:PTC  
'sharpened, it is good to draw when it is sharpened.' (Andreas, 2;0.3)

The analysis of Andreas's data shows that he does not directly repeat the impersonal forms from the input. At the age of 2;0.23 there is an example in the recordings where Andreas's father tells him not to pour milk into the sink, using

the negative indicative *ei kalla* ‘no pouring’. Andreas replies using the correct impersonal form *kallatakse* ‘one pours’ of the same verb.

(6)

FAT: *ei kalla kraanikaussi piima.*

‘no pouring of milk into the sink!’

CHI: *piima kallatakse.*

milk:PART pour:IMPERS:PRES

‘one pours milk.’

FAT: *piima kallatakse suhu ja suust läheb*

milk:PART pour:IMPERS.PRES mouth:ILL and mouth:ELA go:PRES:3SG  
*kõhtu.*

stomach:ILL

‘one pours milk into the mouth and from the mouth it goes to the stomach.’ (Andreas, 2;0.23)

During the age periods of 2;3–3;0 and 3;0–3;1, Andreas’s use of impersonal forms advances considerably. He sometimes has problems choosing the correct verb stem and forms the impersonal on the basis of analogy, as illustrated in examples (7) and (8). In example (7) Andreas makes an error in the stem but uses the correct impersonal suffix with the verb *nätsutama* ‘chew’ and employs the correct form of the verb *viskama* ‘throw’. The formation of the correct impersonal form from the verb *nätsutama* may be difficult for Andreas because of the present impersonal suffix *-takse*. In the case of verbs whose stems end with a *-ta* syllable (*nätsuta-*), impersonalization creates a sequence of two *-ta* syllables *-tatakse* (*nätsuta-takse* ‘one chews’, *kirjuta-takse* ‘one writes’). In these cases, Andreas sometimes omits one of the *-ta* syllables or adds an additional *-ta* syllable where it is not relevant (*\*vajutata-takse* < *vajuta-takse* ‘one presses’).

(7)

CHI: *nätsutakse [\*][= nätsutatakse] kõigepealt ära, siis visatakse*

chew:IMPERS:PRES first away then throw:IMPERS:PRES

‘one chews it first, then one throws it away.’ (Andreas, 2;8.13)

In example (8) Andreas selects the wrong stem of the suppletive verb *minema* ‘go’ for forming the impersonal.

(8)

CHI: *siit august, propelleri kohast lähakse [\*][= minnakse] sisse.*

from-here hole:ELA propeller:GEN place:ELA go:IMPERS:PRES into

‘one goes in this hole from where the propeller blade is.’ (Andreas, 3;0.22)

Yet, when compared with the period of 2;0–2;1, when syllables were often missing from Andreas’s use of the impersonal suffix, in the subsequent periods the impersonal suffix is always correctly employed. Moreover, in both of the periods under discussion, periphrastic forms with the auxiliary *olema* ‘be’ are used correctly and thus resemble the input periphrastic forms. In both periods, Andreas’s use of impersonal forms coheres with the context. Compared with the age periods of 2;0–2;1 and

2;3–3;0, the number of forms of different voice constructions increases considerably at 3;0–3;1.

The first past tense impersonal forms appear in Andreas's speech only at 3;0–3;1. Compared with present tense forms, their number is very small. Past forms are also rare in his parents' speech, although they already use past tense forms in the period of 2;0–2;1. Andreas's recordings show only four instances of past impersonal forms, three of which are formed with the verb *tegema* 'do, make' and one with the verb *valama* 'pour' (*remont tehti ära* 'the renovation was completed', *siia tehti mängupood* 'a toy shop was built here', *kui sulle operatsioon tehti* 'when you were given the operation', and *rebasele valati piima peale* 'milk was poured on the fox').<sup>15</sup>

Although Andreas does not use past forms, his data contain periphrastic auxiliary and participle constructions, such as '*on + -tud*', which are often used to express the result of an action or activity. Andreas uses these forms already at the age of 2;0–2;1.12, well before the time when past impersonal forms make their first appearance. It is often argued that children acquire aspectual categories before the tense category (see Antinucci & Miller 1976, p. 167; Argus 2008, p. 151). This may also be the case here.

As with past forms, there were almost no instances of negative impersonal forms in Andreas's data. The recordings show only three present tense and one past tense negative impersonal form, all of which occur after Andreas has turned three. That he has not yet fully acquired the formation of negative impersonals can be concluded from the fact that out of these three negative present forms only one reflects correct usage while the other two are ill-formed. For instance, to express a negative meaning, Andreas uses the negative particle with the present affirmative impersonal form *ei pestakse* instead of the negative particle and the impersonal stem *ei pesta* (see example (9)).

(9)

CHI: *rohud pannakse suhu.*

drugs put.MPERS:PRES mouth:ILL

'one puts drugs in the mouth.'

CHI: *ei ole, lapiga pestakse.*

NEG be cloth:COM wash:IMPERS:PRES.

'no, it's not, a cloth is used to wash.'

CHI: *põrandat ei pestakse [= pesta] köharohuga, köharohtu*

floor:PART NEG wash:IMPERS:PRES cough-drug:COM cough-drug:PART

*pannakse suhu ju.*

put:IMPERS:PRES mouth after-all

'a floor is not washed with the cough drug, one puts the cough drug into one's mouth, doesn't one?' (Andreas, 3;0.16)

As pointed out above, the use of agent adverbials with Estonian impersonals and passive constructions is not very common in everyday conversations. This may be the reason why there were no instances of *poolt* 'by' agentive adverbials in the speech of Andreas's parents in the recordings analyzed.

**TABLE 4.** Different verbs used in the impersonal in Andreas's and his mother's speech

	Andreas		Mother	
	2;0–2;1.12 (30 hours)	3;0–3;1.13 (30 hours)	2;0–2;1.12 (30 hours)	3;0–3;1.13 (30 hours)
Different verbs in the impersonal	7	38	26	56
Different verb forms in the impersonal (type/token)	7/13	57/139	36/53	83/175

### Variety of Verbs in Andreas's Speech and the Input

There was a notable increase in Andreas's vocabulary, the mean length of utterances (MLU), and the diversity of forms between the ages of two and three (see also Argus 2004, 2009). It is interesting to see whether there is a correlation between the impersonal verbs used by Andreas and those used by his parents. Table 4 summarizes the statistics of different verbs as used in the impersonal construction in Andreas's and his mother's speech. The data of Andreas's father are not included in the table because he appears in only a small proportion of the recordings.

Table 4 shows that at the age of 2;0–2;1.12 Andreas uses seven, while his mother uses 26 different impersonal verbs, six of which overlap (e.g. *joonistama* 'draw', *kallama* 'pour', *kirjutama* 'write', *küsimä* 'ask', *tegema* 'do', *teritama* 'sharpen'). Andreas tends to reproduce the verbs and forms that are present in his input: at the age of 2;0–2;1.12 his data show 13 impersonal forms of seven different verbs, while at the age of 3;0–3;1.13 the data contain 139 impersonal forms of 38 different verbs.

The same can be said about Andreas's mother. The number of different verbs in the impersonal increases in her speech during that period as well: the number of different verbs (types) rises from 26 to 56, while the tokens increase from 53 to 175. At the age of 3;0–3;1.13 there are 175 forms of 56 different verbs in his mother's input, of which 28 are also used by Andreas. These include, for example, *andma* 'give', *ehitama* 'build', *helistama* 'phone', *jooma* 'drink', *joonistama* 'draw', *keetma* 'boil', *kirjutama* 'write', *kuulama* 'listen', *laskma* 'let', *minema* 'go', *panema* 'put', *sööma* 'eat', *tassima* 'tote', *tegema* 'do, make', *võtma* 'take', *värvima* 'paint', *ütleva* 'say', etc.

As outlined above, in Estonian the impersonal can be formed from both transitive and intransitive verbs. The analysis of Andreas's data shows that he uses the impersonal mostly with transitive activity verbs. Altogether, there were 41 different verbs in the impersonal, and 35 of these were transitive and six intransitive (*helistama* 'phone', *kasvama* 'grow', *minema* 'go', *päevitama* 'sunbathe', *ujuma* 'swim' and *võimlema* 'exercise'). There were also 20 impersonal transitive verbs in the present whose object had been omitted but could be deduced from the context. Thus, the acquisition of the impersonal voice with action verbs was not difficult for Andreas.

### Functions of the Impersonal in Andreas's Data

As discussed above, the implicit argument of the Estonian impersonal typically receives two different interpretations. It usually denotes an indefinite actor whose

identity is unknown and left unspecified, or it refers to a generic person who could be any potential performer of the action or activity. In spoken Estonian, however, the impersonal may also be used for salient or identifiable referents, in which case the impersonal cannot be seen to be employed to either mask the agent or generalize its referent. These uses seem to have various motives, for instance, politeness considerations or stylistic nuances (Torn-Leesik & Vihman 2010).

The analysis of the data shows that contexts in which impersonal forms are used by Andreas and his parents in their conversations are of a general character and do not involve references to specific actors or the expression of stylistic nuances. The contexts can be divided into two groups. Firstly, impersonal forms are used in situations that describe how people usually behave. These contexts often involve stating conventional rules. In these situations, the actors are not specified and the reference is to people in general. The negative impersonals used by Andreas's mother and father mostly express rules and prohibitions that they wish to communicate to Andreas (see Table 3 above). This aspect is exemplified in (10) and (11):

(10)

MOT: *kääridega ei teritata pliiaitsit.*  
 scissors:GEN NEG sharpen:IMPERIS pencil:PART  
 'one does not sharpen pencils using scissors.' (Andreas, 2;0.01)

(11)

MOT: *ega näpuga ei vaadata*  
 and-not finger:GEN NEG look:IMPERIS  
 'one does not use one's finger to look at things.' (Andreas, 2;1.0)

Examples (12) and (13) illustrate situations where Andreas and his mother use the impersonal to describe conventional behavior without referring to any particular referent. In example (12) Andreas and his mother discuss what people usually do with chewing gum:

(12)

CHI: *mina sain sealt tädi Eha juurest nätsu natukene.*  
 'I got some chewing gum from Auntie Eha's place.'  
 MOT: *ega sa alla ei neelanud?*  
 'you didn't swallow it, did you?'  
 CHI: *äkkää, ma närisin katki.*  
 'no, I chewed it to pieces.'  
 MOT: *nätsu ei närita katki, näts*  
 chewing-gum:PART NEG chew:IMPERIS broken chewing-gum:NOM  
*visatakse ära prügikasti.*  
 throw:IMPERIS:PRES away bin:ILL  
 'one does not chew the gum to pieces, one throws it in the bin.'  
 CHI: *nätsutakse [\*] [= nätsutakse] kõigepealt ära, siis visatakse.*  
 chew:IMPERIS:PRES first away then throw:IMPERIS.PRES  
 'first one chews it up, then one throws it away.'

MOT: *nätsutatakse.*

chew:IMPERS:PRES

‘one chews.’ [correcting the child’s form]

CHI: *siis nätsutakse [\*] [= nätsutatakse] ja siis pannakse prügikasti.*

then chew:IMPERS:PRES and then put:IMPERS:PRES bin:ILL

‘then one chews it and then puts it in the bin.’ (Andreas, 2;8)

In example (13) the mother and Andreas discuss when an inoculation should be given to a child:

(13)

MOT: *me lähme bussiga sinna kopsuarstile.*

‘we’re taking the bus to the lung doctor.’

CHI: *aga kas kaheaasta [\*] [= kaheaastasele] tehakse süsti?*

but Q two-years olds:ALL do:IMPERS:PRES injection:PART

‘but are shots given to two-year-olds?’

MOT: *kui lapsed kaheseks saavad, siis tehakse jah*

when children two:TERM become:PRES:3PL then do:IMPERS:PRES yes  
*kaitsetsüsti, vaksineerimist.*

protective-injection:PART inoculation:PART

‘when children turn two, then they are indeed given a protective shot, an inoculation.’

MOT: *sinule ka tehti, kui sa kaheaastaseks said.*

2SG:ALL also do:IMPERS:PAST when 2SG two-years:TERM become:AST:2SG

‘you, too, received one when you turned two.’

CHI: *kas süst kaitseb?*

‘does a shot protect you?’

MOT: *jaa, kaitseb erinevate haiguste eest.*

‘yes, it protects you from various illnesses.’

CHI: *aga süst on ju hästi kole.*

‘but a shot is a very scary thing.’

MOT: *miks ta kole on, vajalik on.*

‘why’s it so scary, it’s necessary.’

CHI: *ei ole vaja, kui lapsed on kolmeaastased, siis võib teha, kui lapsed on kaheaastased,*

*siis ei või teha.*

‘no it’s not, when children are three then you can do it, when children are two you can’t.’

MOT: *seda otsustavad arstid, kaheaastaselt tehakse ja*

this:PART decide:PRES:3PL doctors two-years:ABL do:IMPERS:PRES and  
*kolmeaastaselt ei tehta.*

three-years:ABL NEG do:IMPERS

‘this is for doctors to decide – shots are given to two-year-olds and not to three-year-olds.’

MOT: *nüüd tehakse siis, kui sa kooli lähed, siis*  
 now do:IMPERS:PRES then when 2SG school:ILL go:PRES:2SG then  
*tehakse uus süst.*

do:IMPERS:PRES new:NOM injection:NOM

‘the next one will be given to you when you start school.’

CHI: *ei tehta.*  
 NEG do:IMPERS

‘no it won’t.’

MOT: *siis ei tule paha haigused kallale, kõikidele lastele tehakse.*  
 all:PL:ALL children:ALL do:IMPERS:PRES

‘then you’ll be safe from nasty illnesses – all children are given one.’

(Andreas, 3;1.1)

Secondly, impersonal forms were used in situations where Andreas and his parents were describing a current activity in which the actor was left unspecified; in such cases the impersonal refers to an indefinite actor. In these situations, the identification of the actor is not considered important and the principal emphasis is placed on the activity. Example (14) illustrates this use of the impersonal: Andreas asks his mother to leave his toy house because the place is going to be renovated and during the renovation people cannot play there.

(14)

CHI: *jah, aga siin putkas tehtakse [\*] [= tehakse] remont.*  
 yes but here hut:INE do:IMPERS:PRES renovation:NOM  
 ‘yes, but this cabin will be renovated.’

MOT: *remont tehakse, ja kus sina sellel ajal*  
 renovation:NOM do:IMPERS:PRES and where 2SG this:ADE time:ADE  
*elad, kui remont on?*  
 live:PRES:2SG when renovation:NOM be:PRES.3

‘when the place is being renovated, and where are you going to live?’

CHI: *enda kodus.*  
 ‘at my own place.’

MOT: *enda kodus?*  
 ‘your own place?’

CHI: *putka on minu kodus.*  
 ‘the cabin is at my place.’

CHI: *seal putkas tehakse remont ja tehakse*  
 there hut:INE do:IMPERS:PRES renovation:NOM and do:IMPERS:PRES  
*uus putka, vana putka tehakse, vana*  
 new:NOM hut:NOM old:NOM hut:NOM do:IMPERS:PRES old:NOM  
*putka tehakse.*  
 hut.NOM do:IMPERS:PRES

‘the cabin will be renovated and a new one will be built, the old cabin will be built, the old cabin will be built.’

- MOT: *miks vana tehakse?*  
 why old do:IMPERS:PRES  
 ‘why will one build an old cabin?’
- CHI: *on vaja lihtsalt, ma tahtsin ja teevad vana putka.*  
 ‘it’s necessary, I simply want it and they’ll build an old cabin.’
- CHI: *mulle meeldib vana putka.*  
 ‘I like the old cabin.’
- CHI: *tule, tule, siin tehtakse [\*] [= tehakse] remont, siin*  
 come:IMP come:IMP here do:IMPERS:PRES renovation:NOM here  
*tehtakse [\*] [= tehakse] remont.*  
 do:IMPERS:PRES renovation  
 ‘come, come, this place will be renovated.’
- MOT: *tehakse remont jah.*  
 do:IMPERS:PRES renovation yes  
 ‘renovated, yes.’ [correcting the child’s form] (Andreas, 3;0.11)

The ratio of comments relating to the situation at the time of speaking in the mother’s speech to comments that were meant to instruct the child in social conventions was 2:1 (when the age of the child was 2;0–2;1) and 3:1 (when the age of the child was 3;0–3;1), whereas the corresponding proportion in Andreas’s speech was 1:1 (at the age of 3;0–3;1). This shows that his mother devotes more conversation time to describing conventional ways of responding to various situations than she does to referring to the conversational situations themselves. Andreas, in his turn, tends to do both in equal proportions at the age of three.

As stated above, the periphrastic auxiliary and the participial construction ‘*on + -tud*’ often express the result of an action or activity or describe the state that something is in. As a rule, Andreas and his parents use these constructions to convey the idea that an activity has finished or to indicate some kind of result. This is illustrated in example (15):

- (15)
- CHI: *kui on ära istuda, siis, siis ma panen selle pildiaparaadi [= pildiaparaadi] ära.*  
 ‘when you can sit away, then, then I will put the picture bock, away.’
- MOT: *pildiaparaadi [= pildiaparaadi]?*  
 ‘picture bock?’
- MOT: *pildiaparaat.*  
 ‘picture box.’
- CHI: *pildiaparaat panen pärast ära, siis kui on*  
 picture-box:NOM put:PRES:1SG after away then when be:PRES:3  
*tehtud valmes [= valmis].*  
 do:PASS:PTC ready  
 ‘I will put the picture box away afterwards, when it has been done.’
- MOT: *mida on tehtud?*  
 what:PART be:PRES:3 do:PASS:PTC  
 ‘what has been done?’

CHI: *jaa, nüüd on tehtud ja hakkab lindistama.*  
 yes now be:PRES:3 do:PASS:PTC and begin:PRES:1SG record:INF  
 ‘yes, now it has been done and I’ll start recording.’ (Andreas, 2;3.26)

## Concluding Remarks

The present article analyzes the acquisition of the Estonian impersonal voice by an Estonian child, Andreas, from the age of 1;7.24 to 3;1.13. The authors’ aim was to determine the time of the first appearance of various impersonal forms in the child’s everyday conversations, to describe the relations between impersonal forms in the child’s and his caregiver’s language, and to identify typical contexts in which impersonal forms occur. There were no previous longitudinal studies of the acquisition of the Estonian impersonal voice.

Studies on the acquisition of the passive voice in other languages have shown that the age of acquisition of passive voice constructions differs considerably. The differences in the acquisition age can be explained by the difference in the degree of formal and structural difficulty of the construction in a particular language and the frequency of the construction in the input that the child is exposed to. For instance, while English children are believed not to acquire the English agentive passive fully before the age of five (see Fox & Grodzinsky 1998; Israel *et al.* 2001), children speaking the Jakarta dialect of Indonesian acquire the passive at a very early age (some even under two) (Gil 2006). The existing studies on the comprehension of the Estonian impersonal by children (Kunnari *et al.* 2010; Vija *et al.* 2009) show that Estonian children already comprehend impersonal constructions at the age of four.

The present study focused on the production of impersonal forms by an Estonian child, Andreas. The analysis of the data showed that the first impersonal forms made their appearance in Andreas’s speech in the period 2;0–2;1. These first forms are still child-like and truncated, many of them lacking syllables or, in the case of periphrastic forms, the auxiliary. Yet from the age of 2;3 onwards, most of Andreas’s impersonal forms are adult-like despite the fact that he sometimes has slight problems in choosing the correct verb stem. Most of these forms are present tense affirmatives. The number of impersonal forms and the variety of verbs used by Andreas increases markedly after the age of three, and the first instances of past impersonal use appear. Past impersonals remain infrequent in his production. They are relatively rare also in the input of the parents. The variety of impersonal verbs used by both the mother and Andreas increases considerably after Andreas turns three.

Analysis of the context of impersonal use by Andreas and his parents shows that impersonal constructions are employed either to describe situations where people tend to behave in a certain manner or to describe a current activity whose actor is left unspecified. This reflects the two main and widely recognized functions of the Estonian impersonal: those of referring (1) to the general person and (2) to an indefinite actor whose identity is unknown or irrelevant. An example of the first is provided in the mother’s use of the impersonal to communicate conventional rules of behavior, which represents a strategy characteristic of Estonian mothers when they talk to their children.<sup>16</sup> The second represents a straightforward way of referring to

situations or actions which are clearly caused or performed by a human actor about whom the speaker knows very little or nothing at all. Judging by the example of Andreas, Estonian children first acquire the general person reference of the impersonal. Reference to an indefinite actor is acquired slightly later. As for the further uses of the Estonian impersonal described by Torn-Leesik and Vihman (2010), the specific considerations that underlie their employment (politeness, etc.) make them unlikely to appear in parent-child conversations at such a young age. No instances of these uses were found in the conversations between Andreas and his parents.

Generally speaking, the Estonian impersonal appears to be structurally more straightforward and easier to acquire for children than, for instance, the English (or the German) passive. This view is based on the fact that the English or German passives involve valency-reducing operations, whereas in the case of the Estonian impersonal the valency of the verb remains unaffected. Naturally, before any general claims about the acquisition of the impersonal voice by Estonian children can be made, more longitudinal data should be recorded and studied. At the moment, no other sufficiently detailed data are available for research. Moreover, the authors are unaware of any longitudinal studies on the acquisition of voice constructions in closely related languages (such as Finnish), which considerably limits the opportunities for comparative research and makes it impossible to advance well-founded general claims about the acquisition of voice constructions in Balto-Finnic languages. Thus, future research has at least to target a collection of longitudinal data including larger numbers of Estonian children.

## Abbreviations

ABL	ablative
ACT	active
ADE	adessive
AFFIRM	affirmative
ALL	allative
COM	comitative
ELA	elative
GEN	genitive
IMPERS	impersonal
ILL	illative
IMP	imperative
INE	inessive
INF	infinitive
NEG	negative
NOM	nominative
PART	partitive
PASS	passive
PAST	past
PL	plural

PRES	present
PTC	participle
SG	singular
TERM	terminative
Q	question marker
1, 2, 3	first, second, third person

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## Notes

- 1 The child's age in years, months, and days.
- 2 CHILDES (Child Language Data Exchange System) <http://childes.psy.cmu.edu/>.
- 3 In Balto-Finnic, synthetic verb forms are considered to be older than periphrastic verb forms (Laakso 2001, p. 190).
- 4 The isomorphism between perfect forms of impersonal and passive constructions has led to disagreement about whether there are two discrete voice constructions (Blevins 2003; Pihlak 1993; Rajandi 1999 [1968]; Torn 2002, 2006a; Vihman 2004), or a more general construction that subsumes the impersonal and the passive (Erelt 1989; Erelt *et al.* 1993; Tauli 1980). The present paper follows the first approach, which regards impersonals and passives as two different constructions.
- 5 The object in Estonian can occur in the partitive, genitive, or nominative case.
- 6 Rajandi (1999 [1968], p. 81) suggests that agentive adverbials may also appear in the relative, but this use is not very frequent. The use of adessive arguments in the impersonal and passive has been studied by Lindström and Tragel (2007).
- 7 The term is used in generative linguistics to refer to a relation between a moved NP and its trace. The trace is coindexed with the moved NP and forms a chain with it.
- 8 Kunnari *et al.* (2010) also show that Finnish children comprehend similar Finnish voice construction well at the age of four.
- 9 The postposition *poolt* 'by' which is used in agentive phrases can also be interpreted as 'from'.
- 10 The asterisk \* or [\*] marks forms that are considered ungrammatical in Standard Estonian.
- 11 Examples are given in the form they are represented in the CHILDES database.
- 12 [+ I] imitation.
- 13 We give a free translation of the entire example, but gloss only the clauses containing impersonal verbs. Impersonal verb forms are in bold.
- 14 [SR] self repetition.
- 15 The verb *tegeme* 'do' is the source for the majority of impersonal forms in both Andreas's and his mother's speech.
- 16 See Tulviste (2004).

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