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The Use of L2 Estonian Object Case Marking by L1 Chinese Learners: A
Verbal Report Study
Master's Thesis

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Author's Affirmation

I confirm that I have written this thesis independently and have correctly cited all sources. The thesis complies with the requirements of the Institute of Estonian and General Linguistics and with good academic practice.

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Abstract

Estonian object case marking is one of the most challenging areas of Estonian grammar for second language (L2) learners. This study examined how first language (L1) Chinese learners of Estonian selected object cases across sentences with different grammatical conditions and what explicit knowledge they drew on. Data were collected from 18 L1 Chinese learners at B1 to C1 proficiency levels through a 24-sentence written case-choice task targeting partitive, genitive, and nominative contexts, combined with concurrent verbal reports. Target-like rates were higher in partitive (86.8%) and genitive (89.6%) contexts than in nominative contexts (63.9%), with the nominative *da*-infinitive construction subgroup producing the lowest rate of all subgroups (41.7%). The verbal reports showed that negation was highly accessible. Aspectual boundedness was broadly accessible but was not always applied accurately. Salient cues were strongly associated with one specific case: perfective particles with genitive; imperative and impersonal constructions with nominative. These associations were overgeneralized across contexts and created a competing cue pattern sometimes. The partitive-verb category was overextended to aspect verbs. The conditions of *da*-infinitive constructions were less accessible. The central difficulty for these L1 Chinese learners of Estonian object case marking was not simply a lack of relevant explicit knowledge, but rather the partial and uneven availability of that knowledge across different grammatical conditions, and the insufficient integration of it into a coherent and hierarchically organized system.

Keywords: L1 Chinese, L2 Estonian, object case marking, explicit knowledge, verbal reports

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Abbreviations

1SG	First person singular
2SG	Second person singular
3SG	Third person singular
ADE	Adessive case
CL	Classifier
ELA	Elativ
GEN	Genitive
ILL	Illative
IMP	Imperative
IMPERS	Impersonal
INE	Inessive
INF	Infinitive
NOM	Nominative
PAR	Partitive
PFV	Perfective marker
PL	Plural
PROG	Progressive marker
PRT	Perfective particle
PST	Past tense
REFL	Reflexive

Introduction

The use of object case marking in Estonian has been described as one of the most difficult areas of grammar for learners of Estonian as a second language (L2) (Pool 2010: 193). Several studies have examined how L2 Estonian learners use object case forms and acquire this grammar, most of them focused on learners whose first language (L1) is Russian (Ehala 2009, 2011; Pool 2005, 2006, 2007, 2010).

By contrast, research on how learners from other language backgrounds, especially typologically distant language backgrounds, acquire Estonian object case marking remains limited. Chinese and Estonian differ substantially in how grammatical relations are encoded: Estonian has a rich morphological case system in which object case selection depends on lexical, semantic and syntactic factors (Erelt et al. 1993: 49–50; Erelt, Erelt & Ross 2020: 421–422; Metslang 2017: 264–265), whereas Chinese grammatical relations are encoded primarily through basic SVO word order (Huang, Li & Li 2009: 40–43; Li & Thompson 1981: 184–185). For L1 Chinese learners of Estonian, acquiring object case marking therefore involves not merely learning new inflectional forms, but constructing a new system of encoding grammatical relations that has no direct equivalent in the L1.

L1 Chinese learners of Estonian have begun to receive attention in the field of Estonian second language acquisition (SLA). Existing studies have examined selected areas of Estonian grammar in this learner group, including the Estonian case system (Tarkin 2019), Estonian tense morphology, from present and simple past verb forms in Tarkin (2021) to a focus on three past verb forms—simple past, present perfect, and past perfect forms in Zhang (2025), and the expression of static spatial relations (Bleive 2023). Tarkin (2019) identified the choices between total and partial objects as one problematic function within their broader use of Estonian cases, but that reasoning behind their choices was not investigated. To date, no previous study has focused specifically on how L1 Chinese learners use Estonian object case forms. As the number of L1 Chinese learners of Estonian continues to grow—Estonian is offered as a degree programme at Beijing International Studies University and Beijing Foreign Studies University (Estonian Ministry of Foreign Affairs 2024; Gao & Shen 2018: 64; Tragel 2015), a more detailed understanding of how this learner group approaches object case marking becomes increasingly relevant for both research and pedagogy.

The aim of this thesis is to examine how L1 Chinese learners of Estonian select object case forms in a controlled written case-choice task and to investigate the reasoning and the explicit

knowledge they draw on when making those choices. The study is guided by the following two research questions:

1. How do L1 Chinese learners of Estonian select object case forms across sentences with different grammatical conditions, and how does their selection differ from target-like usage in Estonian?
2. On what basis do learners choose a specific object case form and what kinds of explicit knowledge do they draw on?

Data were collected from 18 L1 Chinese learners of Estonian at B1 to C1 proficiency level through a written sentence-level case-choice task combined with concurrent verbal reports, in which informants verbalized their reasoning as they made each case selection. The verbal report data were not treated as a direct record of cognitive process, but rather as evidence of the explicit knowledge that informants were able to articulate in connection with their choices.

The thesis is structured as follows: Chapter 1 provides the theoretical background. Chapter 2 describes the Estonian object case marking system, reviews previous research on its L2 acquisition, and briefly provides the encoding of aspectual and quantitative boundedness in Chinese as relevant background. Chapter 3 presents the material, method, informants, and data analysis procedures. Chapter 4 reports the results and analysis. Chapter 5 presents the conclusions, discusses the limitations of the study, and outlines directions for future research.

1. Theoretical background

1.1. Grammar and grammar learning

Grammar is widely regarded as a central component of L2 learning and use (Larsen-Freeman 2015: 263–264). Larsen-Freeman (2014: 257–258) characterizes grammar as comprising three interdependent dimensions: *form*, referring to morphosyntactic structures; *meaning*, referring to the semantic distinctions those structures encode; and *use*, referring to the contextual conditions governing form selection. From this perspective, grammatical description should go beyond mere descriptive rules and additionally include an explanation of why a particular form might be chosen over other forms with the same meaning, which is a substantially more demanding process (Roehr-Brackin 2018: 78).

Schmidt (1990, 2001) proposed that conscious awareness of one grammatical feature mainly operates on three hierarchical levels—*perception*, *noticing*, and *understanding*. Perception is not necessarily conscious; noticing refers to conscious attention to “surface elements” and is potentially available for verbal report, while understanding involves reflection, comprehension and insight of the underlying rules. Awareness at the level of noticing is a necessary condition for learning, while awareness at the level of understanding will foster deeper and more rapid learning (Schmidt 2001). Verbal report data can provide insight into the level at which a learner has engaged with a grammatical feature (Roehr-Brackin 2018: 122–123).

Learning difficulty in L2 grammar can be explained partly by the properties of the grammatical feature itself. The three overarching factors: complexity of form, complexity of meaning and complexity of the form–meaning relationship play a role in determining grammatical difficulty (DeKeyser 2005: 3; Roehr-Brackin 2018: 83–84). Form can contribute to learning difficulty when learners must choose among several morphological forms to express a grammatical meaning. L2 meaning can also be a source of difficulty because of novelty, abstractness, or both. Those elements of grammar are hard to acquire for learners whose L1 has no equivalent or uses a very different system if they are highly abstract and difficult to infer from the input either explicitly or implicitly. DeKeyser (2005: 6) specifically mentions that where the semantic system of the L1 is different from that of the L2, as is very often the case for aspect, the learning problem will be more serious. L2 form–meaning mappings can be a source of difficulty if the link between form and meaning lacks transparency because of redundancy, optionality or opacity. Highly transparent mappings may be easier to acquire, whereas opaque mappings may remain difficult even after considerable input, so grammar

features that require learners to simultaneously evaluate multiple grammatical conditions, especially those lacking of salience, are harder to acquire and harder to represent as explicit rules than those governed by a single transparent condition (DeKeyser 2005: 3–10, 14).

This is directly relevant to this study because the object case marking system is governed by not only syntactic factors but also semantic factors (Erelt, Erelt & Ross 2020: 421–422), but Chinese does not have a direct equivalent to this system, which indicates that they must construct a new set of form-meaning mapping from learning (Li & Thompson 1981: 184–185). Based on DeKeyser's (2005) framework of grammatical difficulty, it can be predicted that salient cues like negation and the perfective particles may therefore be more readily verbalized and those less salient and more abstract and complex conditions, such as the aspect, the quantitative boundedness or the *da*-infinitive constructions will produce more variation.

1.2. Learner grammar as a developing system

Ellis (2015: 83–84) notes that L2 grammatical development is not linear: the accuracy of the use of grammatical features shows noticeable fluctuations over time; and it is uneven: different grammatical features follow different trajectories over time. Learners do not acquire constructions one at a time: learning is gradual, and constructions do not appear fully developed and error-free even after a learner has encountered them in various contexts. In the early stages, learners tend to rely on their existing linguistic resources, typically their L1 or other languages they know, to make sense of the new language's grammatical features, and make use of formulaic expressions extensively. Gradually, those formulas can be unpacked and the constructed patterns become less fixed, allowing for more creative use (Ellis 2015: 83; Larsen-Freeman 2014: 261–263).

Corder (1981: 10) argued that learner errors are not merely defective forms in need of correction but reflect the systematic linguistic knowledge the learner has constructed at a given developmental stage rather than simply the absence of target knowledge—a system he termed *transitional competence*. Selinker (1972) introduced the concept of *interlanguage*—the systematic L2 knowledge that is independent both of the L1 and of the target language. Larsen-Freeman and Long (1991) synthesized previous interlanguage studies and argue that learner language is not a random collection of errors. Rather, interlanguages show systematic variability, exhibit recurring acquisition orders and developmental sequences. Dimroth (2012: 1) further expanded this concept as *learner variety*—a coherent linguistic system produced by

a L2 learner, viewing it as one variant of the L2 rather than a random collection of deviations from the target language.

This perspective has direct consequences for the present study. Learner responses, including target-like choices and non-target-like choices and their patterns, are treated as an interlanguage in which some governing conditions are accessible and others are not. They are treated as evidence of how learners currently represent and reason about Estonian object marking rather than simply errors.

1.3. Explicit and implicit knowledge

A central distinction in SLA research is the one between explicit and implicit knowledge, which is fundamental to understanding how learners develop grammatical competence (Ellis 2004: 233–234; Ellis 2008; Roehr-Brackin 2018: 2).

Explicit knowledge about language is defined as conscious, declarable knowledge. It consists of facts about linguistic forms and rules that learners are aware of and can, in principle, articulate (Ellis 2004: 227–229). It is potentially available for verbal report and stored in declarative memory and is generally accessible through controlled processing: it requires deliberate attention and is typically recruited to monitor or edit production, especially in tasks that allow time for reflection. By contrast, it may not be readily available in spontaneous language use where there is little opportunity for processing relevant declarative facts (Ellis 2004: 237; Ellis et al. 2009: 12–13). Ellis et al. (2009: 38) conceptualizes explicit knowledge as involving primarily *analyzed knowledge*—conscious awareness of grammatical rules and features, and secondarily *metalinguage*—knowledge of terminology for labeling and describing grammatical features. Rodríguez Silva and Roehr-Brackin (2016: 318–319) explicitly treat knowledge of pedagogical grammar rules as one central example of explicit knowledge.

Implicit knowledge, by contrast, is tacit, intuitive, and non-conscious. It is procedural in nature and it is available through automatic processing, without awareness and deliberate attention to form (Ellis 2004: 227–229; Ellis et al. 2009: 11–13). Implicit knowledge cannot be directly articulated and it is accessed quickly and effortlessly in unplanned language use once they are established. These two types of knowledge are distinct but not entirely separate. Ellis (2004: 234) argues that they should be treated as dichotomous in theoretical terms, while acknowledging that in practice learners draw on both in varying proportions depending on task conditions.

Explicit knowledge is not a uniform construct. Learners' uses of explicit knowledge may reflect different degrees of consciousness and also that the extent to which learners are able to articulate their explicit knowledge will be variable (i.e., more or less explicit) (Ellis 2004: 233). Declarative rules held by L2 learners are frequently imprecise and incomplete, and there are often significant gaps between what a learner can state as a rule and what they can apply accurately across all relevant contexts. The explicit knowledge can grow in breadth as more declarative facts about the language are accumulated and advance in terms of depth as the learner refines existing explicit knowledge (Ellis 2004: 237; Toth 2022: 210). It can be predicted that the verbalization from informants can range from a fully articulated and accurately applied rule to a partially correct principle, a memorized surface association, or an incorrect overgeneralization.

In this study, the written case-choice task encourages controlled processing and reflection. Thus, concurrent verbal reports are treated as evidence of the explicit knowledge informants were able to articulate. An L2 learner may state a complete and accurate rule, a partially correct rule, a memorized sentence construction, a surface-form association or report only that a form sounds correct or natural without any grammatical reasoning. Responses based only on naturalness, familiarity or uncertainty are not treated as evidence of explicit knowledge nor implicit knowledge because it cannot be determined from verbal report data alone whether such responses reflect implicit knowledge or simply the absence of relevant explicit knowledge.

Taken together, these perspectives allow the present study to examine Estonian object case marking not only as a matter of correct or incorrect case selection, but as a developing grammar system of the interlanguage based on learners' task performance and verbalizable explicit knowledge.

2. Estonian object case marking, previous SLA research, and relevant L1 Chinese background

In this chapter, section 2.1 describes the Estonian object case marking system. Section 2.2 reviews previous research on its L2 acquisition. Section 2.3 briefly provides relevant background on how Chinese encodes the two semantic conditions: aspectual boundedness and quantitative boundedness of the object rather than offering a full contrastive analysis between Estonian object marking and Chinese object marking.

2.1. Estonian object case marking

Object is defined as a clause element that indicates what the action expressed by the verb is directed at, typically realized by a noun phrase in the partitive, genitive or nominative case in Estonian (Erelt, Erelt & Ross 2020: 420; Metslang 2017: 258).

2.1.1. Total and partial objects

In the Estonian grammatical tradition, the fundamental object marking opposition is the distinction between the total objects (*täissihitis*) and partial objects (*osasihitis*) (Erelt et al. 1993: 46; Ogren 2015: 280; Vihman, Lieven & Theakston 2016: 2). Partial objects are marked in the partitive case, as shown in example (1). Total objects are marked in the genitive, as shown in examples (2) or nominative case, as shown in example (3) (Erelt et al. 1993: 46).

- (1) Kirjutan parasjagu raamatut oma reisist Indiasse
write.1SG currently book.PAR REFL trip.ELA India.ILL
'I am currently writing a book about my trip to India.'
- (2) Kirjutasin raamatu oma reisist Indiasse
write.PST.1SG book.GEN REFL trip.ELA India.ILL
'I wrote a book about my trip to India.'
- (3) vii laps lasteaeda
take.IMP child.NOM kindergarten.ILL
'Take the child to kindergarten!'

The choice between the total object and the partial object depends mainly on three factors: clause polarity, clause aspect, and the quantitative boundedness of the object (Erelt, Erelt & Ross 2020: 421–422; Metslang 2017: 264).

First, object case is highly sensitive to negation. In negative clauses, the object normally appears in the partitive case regardless of other conditions (Erelt et al. 1993: 51; Erelt, Erelt & Ross 2020: 421–422; Metslang 2017: 264).

Second, object case depends on the clause aspect. An aspectually bounded clause presents the action or situation as having an internal limit or as leading to an endpoint (perfective aspect), whereas an unbounded clause presents it as ongoing without a limit or endpoint (imperfective aspect). A bounded clause aspect is a necessary condition for total object marking, whereas unbounded clause aspect leads to partial object marking (Erelt et al. 1993: 50–51; Erelt, Erelt & Ross 2020: 421–422; Metslang 2017: 264–268).

Third, object case is conditioned by the quantitative boundedness of the object. A quantitatively bounded object is construed as a concrete, definite and delimited whole, such as a countable object or a fixed amount. A quantitatively unbounded object denotes a substance, indefinite amount, or unspecified set. A quantitatively bounded object is a necessary condition for total object marking, whereas quantitatively unbounded ones lead to partial object marking (Erelt et al. 1993: 50–51; Erelt, Erelt & Ross 2020: 421–422; Metslang 2017: 264–268).

The main principles of object case selection can be summarized as follows: a total object occurs when all three conditions are simultaneously satisfied: the clause is affirmative, the object is quantitatively bounded, and the clause is aspectually bounded. If any one condition is not met, the object is realized as a partial object (Erelt et al. 1993: 46, 50–51; Erelt, Erelt & Ross 2020: 421–422; Metslang 2017: 264–265).

2.1.2. Verb classes and perfective particles

Clause aspect is determined mainly by the internal aspect of the verb. Verbs are commonly classified into partitive verbs and aspect verbs (Erelt et al. 1993: 49–50; Erelt, Erelt & Ross 2020: 421–422; Metslang 2017: 264–265).

Partitive verbs typically take partial objects, as the actions they express lack an inherent endpoint or internal boundary, and the event is therefore not construable as leading to a defined result. Typical partitive verbs include perceptual and emotion verbs such as *armastama* ‘to love’, *kartma* ‘to fear’, and *nägema* ‘to see’, as well as certain activity verbs such as *kallistama* ‘to hug’.

Aspect verbs allow alternation between total and partial objects, as the actions they express can potentially lead to a result; in such cases, object case selection depends on the resultativity of the event and the quantitative boundedness of the object (Erelt, Erelt & Ross 2020: 421–422; Metslang 2017: 264–265). In addition, Estonian grammar also recognizes a small group of

verbs that typically take only total objects, sometimes referred to as perfective verbs, such as *ammendama* ‘to exhaust’, *andestama* ‘to forgive’, *leidma* ‘to find’, *saavutama* ‘to achieve’ and *ära jätma* ‘to cancel’ (Metslang 2017: 264). These verbs usually express events that are inherently interpreted as completed.

Perfective particles, such as *läbi*, *valmis*, and *ära*, mark the completion of an action and introduce aspectual boundedness into the clause. When such particles occur, they can license the use of a total object even with partitive verbs (Vaiss 2004: 73–74).

2.1.3. Nominative and genitive total objects

Total objects occur in the singular genitive, singular nominative and plural nominative. In the singular, the genitive is the default case of the total object, while the nominative appears under specific structural conditions. The specific conditions under which nominative total objects occur are as follows: (Erelt et al. 1993: 55; Erelt, Erelt & Ross 2020: 423–425; Metslang 2017: 271–272)

1. The predicate is in the impersonal voice. See example (4)
2. The predicate is in the imperative or jussive mood. See example (5)
3. The *da*-infinitive phrase (the *da*-infinitive + its associated total object) functions as a) clausal subject or b) modifier of a noun. See examples (6a, b)
4. The total object is semantically plural. See example (7)

(4) laps viidi lasteaeda.
 child.NOM take.PST.IMPERS kindergarten.ILL
 ‘The child was taken to kindergarten.’

(5) vii laps lasteaeda.
 take.IMP child.NOM kindergarten.ILL
 ‘Take the child to kindergarten!’

(6)

a. Isal oli kavas viia laps lasteaeda
 father.ADE be.PST.3SG plan.INE take.INF child.NOM kindergarten.ILL
 ‘The father planned to take the child to kindergarten.’

b. Tal on kavatsus viia laps lasteaeda
 3SG.ADE be.3SG intention.NOM take.INF child.NOM kindergarten.ILL
 ‘He/she has the intention to take the child to kindergarten.’

- (7) Isa viis lapsed lasteaeda
 father.NOM take.PST.3SG child.PL.NOM kindergarten.ILL
 ‘The father took the children to kindergarten.’

The impersonal voice in Estonian does not involve promotion of a patient argument to subject position or demotion of an agent. It is an impersonal construction in which no agent argument exists syntactically, and the nominative object marking is a property of the construction type itself, not a consequence of argument promotion (Erelt et al. 1993: 51–52).

Significantly, the nominative total object does not appear when the *da*-infinitive phrases function as the object in a clause, see example (8). Its singular total object is in the genitive (Erelt, Erelt & Ross 2020: 425; Metslang 2017: 272; Ogren 2015: 285–286).

- (8) Ma tahan eesti keele ära õppida
 1SG want.1SG Estonian.GEN language.GEN PRT learn.INF
 ‘I want to master Estonian.’

2.2. Previous Research on the SLA of Estonian Object Marking

The acquisition of total and partial objects has been discussed in several studies on Estonian as a second language, where L1 Russian learners have been especially focused.

Across oral and written production and elicited test tasks, Pool (2005, 2006, 2007, 2010) focused on the study of how advanced L1 Russian learners used object cases and showed that even advanced learners had difficulty with object case alternation: partitive objects were used most accurately across all task types, while genitive marking and nominative marking were more prone to non-target-like choices. The most frequently observed error type was the overuse of the partitive in contexts requiring a total object, while the reverse type: use of a total object in a partitive context, occurred less often and mainly with specific construction types. Pool (2007) further noted that some learners avoided structurally complex object contexts altogether especially in translation task, for example by reformulating the clause or omitting the object. Pool (2010) explicitly found that Russian learners regarded the form of verb as a more important criteria to choose object cases because they often chose nominative even in partitive-required imperative and impersonal constructions

Ehala (2009) addressed the question of language change and examined whether these object-marking deviations were spreading into native Estonian usage due to linguistic contacts.

However, the study found that L1 Russian learners of Estonian had an overuse of partitive in total object contexts and an overuse of the nominative case in impersonal negative constructions. Ehala (2011) examined Estonian object marking in written production by L1 Russian learners using a gap-fill task in which all target positions required a form of the same noun across sixteen structurally distinct constructions and found large-scale variability in object-case use: non-target-like choices occurred in all three object case contexts and at substantially different rates across construction types. Ehala (2011) argued that non-target-like forms could not be explained only as direct transfer from L1 Russian. Learners also overgeneralized productive Estonian-internal patterns and produced hybrid form. The high overuse of genitive both in nominative and partitive contexts was probably caused by extending the genitive as a default marker of perfectivity. The overuse of nominative in partitive contexts and subjectless constructions was probably caused by the reanalysis of the object as the subject of the sentence, and possibly influenced by the English passive.

These studies on L1 Russian learners already suggest that difficulty with object case marking is not uniform across contexts but reflects differences in different contexts with different governing conditions.

Concerning L1 Chinese learners specifically, Tarkin (2019) examined the use of Estonian case system by L1 Chinese learners rather than focusing on object case marking. However, she found there was frequent overuse of the nominative at the expense of genitive and partitive, concluding that the opposition between total and partial objects was difficult for this group.

Previous work has mainly shown how L1 Russian learners acquire the Estonian object case marking, for whom Russian provides both a morphological case system and an aspectual system that can function as an analogical resource, but there is no study that focuses specifically on how L1 Chinese learners of Estonian, whose L1 has no morphological case system, acquire total and partial objects and what kinds of explicit knowledge they draw on. The present study addresses this gap.

2.3. Encoding of aspectual and quantitative boundedness in Chinese

Chinese has no nominal case morphology and its grammatical relations are encoded primarily through basic SVO word order (Huang, Li & Li 2009: 40–43; Li & Thompson 1981: 184–185).

This section provides the background necessary for understanding why Chinese has no direct morphological equivalent to the Estonian case marking system, rather than offering a

full contrastive analysis between Estonian object marking and Chinese object marking. It focuses on the two semantic conditions that most related to object case selection in Estonian: the aspectual boundedness of the event and the quantitative boundedness of the object and presents briefly how Chinese express these distinctions.

2.3.1. Aspectual boundedness

The aspectual boundedness of the event is encoded in Chinese mainly through verbal aspectual markers and resultative expressions, without any change to the nominal form itself. (Iemmolo & Arcodia 2014: 316–320; Li & Thompson 1981: 184–185).

The verbal suffix *-le* is generally classified as perfective aspect marker, expressing perfectivity. An event can be viewed as bounded when temporal, spatial or conceptual limits are placed on it. The imperfective markers *zài* and *-zhe* present an event as ongoing or durative. The experiential marker *-guo* signals that an event has occurred at some point in the speaker's experience. Delimitative verb reduplication (e.g. *kàn-kan* ‘take a look’) marks a brief or tentative action with limited scope (Li & Thompson 1981: 184–185, 213–219)

In addition to these markers, Chinese express event completion and resultativity through resultative verb compounds, in which a result complement follows the main verb and specifies the outcome of the action (Li & Thompson 1981: 54–58). The result complement contributes the endpoint meaning, while *-le* may additionally indicate completiveness.

The following examples illustrate the contrast between an ongoing, unbounded event and a completed, resultatively bounded event. See example (9a, b)

(9)

- a. wǒ zài xiě yì-běn shū
 1SG PROG write one-CL book
 ‘I am writing a book.’
- b. wǒ xiě-wán-le yì -běn shū
 1SG write-finish-PFV one-CL book
 ‘I finished writing a book.’

In (9a), the progressive marker *zài* signals an unbounded ongoing event; In (9b), the resultative verb compound *xiě-wán* ‘write-finish’ together with *-le* presents the event as completed and its result as achieved. The object noun *shū* ‘book’ is identical in form in both sentences.

2.3.2. Quantitative boundedness of the object

Chinese lacks a grammaticalised definite article. Identifiability and specificity are instead signalled through demonstratives (e.g. *zhè* ‘this’; *nà* ‘that’), possessives, universal quantifiers (e.g. *dōu* ‘all’), and numeral-classifier phrases, while bare nouns and unquantified noun phrases typically receive a non-specific, indefinite interpretation (Iemmolo & Arcodia 2014: 320–323; Li & Thompson 1981: 126–135). The following examples illustrate how Chinese signals the distinction between an identifiable specific referent and a non-specific indefinite one. See example (10a, b)

(10)

a.

gěi wǒ nà-zhāng zhǐ
give 1SG that-CL paper
‘Give me that sheet of paper.’

b.

gěi wǒ yì-xiē zhǐ
give 1SG some paper
‘Give me some paper.’

In (10a), the demonstrative *nà* ‘that’ combined with the classifier *zhāng* construes the referent as a specific, delimited whole. In (10b), *yì-xiē* ‘some’ presents the referent as an unspecified quantity. Again, the noun *zhǐ* ‘paper’ is morphologically identical in both sentences; the distinction that Estonian marks on the noun is encoded in Chinese through the quantifier-classifier phrase preceding it.

3. Material, method and informants

3.1. Method

Verbal reports have been used in SLA research to provide access into a range of issues that cannot be adequately accessed through learner production data alone, such as the cognitive processes and knowledge learners draw on during task performance. Within the tradition of introspective research, two main types of verbal report are distinguished—verbal reports produced during a task are referred to as concurrent verbal reports or think-aloud, whereas those produced after the task are referred to as retrospective reports or stimulated recalls (Bowles 2010: 111; Kikerpill 2010: 89–90). A gap of approximately 10–20 seconds between thought and verbalization during concurrent reports is accepted without removing the data from its methodological scope (Cohen 1996).

The present study employs a concurrent verbal report/think-aloud method combined with a written task in order to investigate the explicit knowledge that L1 Chinese learners of Estonian draw on when selecting object case forms in sentence context, broadly understood as verbalizations produced during or immediately after each case choice. This method is consistent with the introspective verbal report method as practised in the Estonian SLA research tradition (Maisla 2011, 2014; Kikerpill 2010; Pool 2006, 2010; Tarkin 2019, 2021; Tkatšova 2021).

Bowles (2010) and Ellis (2004: 228–229, 262–263) emphasize two principal validity issues surrounding the use of verbal reports—reactivity, which concerns the extent to which verbalization alters task performance: verbalization may alter the cognitive process it is meant to capture, as the requirement to articulate reasoning may cause learners to construct something they do not normally use; and—veridicality, which concerns the extent to which verbalization accurately reflects the informants's cognitive processes. Concurrent verbal reports are more complete and more veridical than retrospective reports, since participants who verbalize during a task are not influenced by the memory decay, unlike those who are asked to report their thoughts some time after completing a task. A further concern is that learners may possess explicit knowledge of a specific rule but fail to verbalize it satisfactorily simply because they lack the necessary skill to talk about language (Ellis 2004: 263).

In view of these limitations, the verbal data were treated as evidence of the explicit knowledge informants were able to articulate in connection with their case choices, rather than as a direct record of cognitive process. When no explicit verbal reasoning was produced on one

item, a forcing interpretation should not be applied because it could not distinguish between the absence of accessible knowledge and knowledge that exists but could not be expressed.

3.2. Informants

The informants are 18 L1 Chinese learners of Estonian. Of these, 5 are students majoring in Estonian at Beijing Foreign Studies University. 13 are current or former students at the University of Tartu. Of the 13 informants connected with the University of Tartu, 11 were graduates of the Estonian major at Beijing International Studies University; 2 started to learn Estonian at the University of Tartu after coming to Estonia.

All informants have reached at least B1 level in Estonian at the time of data collection. 9 informants held a B1 certificate, 4 held a B2 certificate, 4 held a C1 certificate, and 1 informant, although not holding a formal certificate, has previously passed the University of Tartu C1 Estonian language course. Proficiency level was recorded as background information but was not used as a comparative variable, which might be a direction for future research.

Estonian B1 level was applied as the minimum inclusion criterion for two reasons. Firstly, the present study required not only grammatical choice in sentence context but also concurrent verbalization of reasoning, whereas learners below B1 level would be less likely to produce sufficiently informative verbal reports for the purposes of the study (CEFR Companion Volume 2018: 133–144; Hausenberg et al. 2008: 41–42). In addition, Estonian pedagogical material focusing on object case marking has been specifically developed for learners at B1/B2 level and above (Hausenberg et al. 2008: 84–85; Pool 2013; University of Tartu 2019).

In terms of learning background, 16 informants have studied Estonian for more than three years and 2 for less than three years. All informants have lived in Estonia and all had studied at least one additional foreign language besides Estonian.

3.3. Sentence design

The task consisted of 24 sentences with eight items targeting each of the three object cases: partitive, genitive, and nominative. The sentences were presented in a randomized order in the written task (see Appendix 1). The sentences were collected and adapted primarily from object case practice materials used in Estonian language courses at the University of Tartu at levels B1.1–B1.2 and B1.2–B2.1, broadly corresponding to the informants' proficiency level. The sentence set was subsequently reviewed and revised in consultation with two Estonian language teachers and researchers specialising in Estonian grammar and teaching.

In order to increase formal clarity and keep the task within a more controlled range, only singular object nouns were included. All selected object nouns had distinct nominative, genitive and partitive forms, which were clearly presented as explicit options so that morphological ambiguity does not influence learners' choices. Potential semantic ambiguity was reduced by adding contextual and grammatical cues where necessary. Pronominal references were avoided in order not to provide indirect cues to the target-like case. Each sentence was constructed so that only one case form was grammatically most acceptable in its context, based on the morphosyntactic and semantic factors governing object case assignment in Estonian as described in Chapter 2.

The eight partitive sentences were organised into three subgroups according to different grammatical conditions. Subgroup 1 contains two sentences governed by clause negation. Subgroup 2 contains three sentences with partitive verbs. Subgroup 3 contains three sentences with aspect verbs in aspectually or quantitatively unbounded contexts.

The eight genitive sentences were organised into three subgroups. Subgroup 1 contains five sentences with perfective aspect and the completion of event achieved in the past. Subgroup 2 contains two sentences with perfective aspect but the completion reached in the future. Subgroup 3 contains one sentence with a genitive total object in a *da*-infinitive construction. The distinction between Subgroups 1 and 2 was motivated by the possibility that already-completed and prospectively-completed events may present different levels of difficulty for learners, which was also observed in the analysis.

The eight nominative sentences were organised into three subgroups. Subgroup 1 contains three sentences with impersonal constructions. Subgroup 2 contains three sentences with imperative constructions. Subgroup 3 contains two sentences with *da*-infinitive phrases functioning as grammatical clausal subjects or nominal modifiers.

The task has several design limitations that have to be admitted. Contextual support was limited by the use of relatively short sentences. Only singular objects were included, so findings apply to singular object contexts only. The structural subgroups are unequal in size, which limits the comparability of accuracy rates across subgroups. In particular, Subgroup 3 of the genitive context contains only one sentence, which is treated as a structurally distinct item rather than a representative subgroup, and results for this item cannot be generalised in the same way as subgroups with multiple items.

3.4. Procedure

Before data collection, the study was approved by the Research Ethics Committee of the University of Tartu on 17 November 2025, approval no. 406/T-12. A pilot data collection session was conducted with an L1 English learner of Estonian at approximately B2 level. The pilot confirmed that the task could be completed within a reasonable timeframe and provided an opportunity to refine the instructions and procedure.

Data collection took place either in person or online based on the actual circumstances. In both formats, the same procedure was followed. Before the task began, each informant signed an informed consent form agreeing to audio recording and the use of data for the purposes of the thesis. Informants also completed a short background questionnaire covering their Estonian learning history and language background (see Appendix 2). Audio recordings were transcribed using the built-in transcription function in Microsoft 365 Word on the researcher's university account and then manually checked by the researcher. All direct personally identifiable information when transcribing was removed to ensure the informants' privacy and protect their personal data. The informants were coded as INF1, INF2, and so on, with the numbering assigned according to the chronological order in which the tasks were conducted.

Informants were instructed to read each sentence aloud and verbalize their thoughts while selecting the object-case form they considered most appropriate. Due to the brevity of the task items, informants frequently completed their selection before or during their verbalization rather than maintaining strictly simultaneous verbalization throughout, which was still methodologically accepted (Cohen 1996). They were also explicitly told that the task was not a test of grammatical accuracy and were encouraged to express their natural thought process. The main language used to verbalize depended on the informant's preference, which helped informants verbalize more effectively. One informant verbalized in English while 17 informants verbalized in Chinese.

3.5. Data analysis

The data collected in this study consisted of two parts: the object case choices recorded in the written task, and the verbal explanations produced during the concurrent verbal reports.

24 items were grouped firstly into three groups by the case expected—partitive, genitive and nominative, and then grouped into each subgroup; For the case choice data, choices of all 18 informants were coded according to the case form selected—nominative, genitive or partitive, and then categorized as target-like or non-target-like choices in relation to the

grammatical context of the sentence. The overall distribution of target-like and non-target-like choices was calculated for each sentence, for each structural subgroup, and for the three case types. The result is presented in Table 1 in Chapter 4.1.

For the verbal report data, analysis was conducted qualitatively at sentence level. For each sentence, the verbal reports were first grouped according to the case form chosen by the informants and read in full before any categories were assigned. Recurring explanations were then compared across informants and items. The identified recurring verbalized reasoning types were grouped into a reasoning pattern. The labels used for the reasoning patterns were assigned by the researcher later. The resulting reasoning patterns fell into two broad types: those that correspond directly to a governing condition of Estonian object marking as described in Chapter 2, and those that recurred consistently in the verbal reports but relate to the governing conditions less directly, either by reflecting a salient surface association or by capturing a learner-side conceptualization or the absence of grammatical reasoning altogether.

These reasoning patterns were not imposed as a fixed coding scheme in advance, but were identified and developed from the informants' own verbal report data through the data analysis. A reasoning pattern was not treated as equivalent to an accurate and precise rule. Within each pattern, the degree of explicitness and accuracy of knowledge also varied. The same pattern could occur in both target-like and non-target-like choices. The reasoning patterns and description are presented in Table 2 in Chapter 4.2.

To improve internal consistency, the verbal reports were reviewed in multiple passes: all reports were coded initially, followed by a second review of approximately half the data and a third review of approximately one-fifth, each time checking the pattern assignments against the verbal reports. Regarding the limitations, the reasoning patterns were the researcher's inductive analytical categories developed by the researcher to describe recurring reasoning types identified in these verbal reports rather than independently pre-existing learner categories, which means that they inevitably involved the researcher's interpretation. In addition, the use of broad reasoning-pattern categories might not capture some variation within individual explanations even though some variation would be noted in the sentence-level analysis.

If different reasoning patterns were identified from one verbalization, the verbalization was coded according to which primarily motivated the final choice, with other reasoning elements and these internal variations presented in the sentence-level analysis in Chapter 4.2.1—4.2.3.

4. Results and analysis

This chapter presents the results of the written task and analysis and discusses the findings in relation to the research questions. Section 4.1 provides a quantitative overview of the case form choices made by the 18 informants across all 24 sentences. Section 4.2 presents the qualitative analysis of the verbal reports, organized by case type: partitive, genitive, and nominative, with a synthesis section following each case type. Section 4.3 draws together the findings across all three case types.

4.1. Quantitative overview of case choices

Table 1 presents the overall case choices and the accuracy of the target-like case choice of 18 informants for each sentence, each case type group and each structural group. Overall, genitive contexts produced the highest rate of target-like choices (129/144, 89.6%), followed by partitive contexts (125/144, 86.8%), while nominative contexts produced considerably fewer target-like choices (92/144, 63.9%).

Table 1. Object case choices by item, case context, and structural subgroup (most frequent non-target-like choices in each item and lowest target-like rates in each subgroup marked in bold)

Subgroup / Sentence	target-like choice	NOM	GEN	PAR	Target-like /18	%
PART I—Partitive contexts: 8 sentences, 125/144, 86.8%						
Subgroup 1—Negative clauses: 2 items, 33/36, 91.7%						
S1. <i>Ma ei vaadanud ____.</i>	<i>etendust</i>	0	0	18	18	100%
S2. <i>Ära esita ____!</i>	<i>avaldust</i>	3	0	15	15	83.3%
Subgroup 2—Lexical-aspectual partitive verbs: 3 items, 43/54, 79.6%						
S3. <i>Mari harjutab iga päev tund aega ____.</i>	<i>viulit</i>	0	2	16	16	88.9%
S4. <i>Hindan inimeste juures eelkõige ____.</i>	<i>ausust</i>	0	1	17	17	94.4%

Subgroup / Sentence	target-like choice	NOM	GEN	PAR	Target-like /18	%
S5. ____ alustatakse tihti ilmast rääkimisega.	vestlust	8	0	10	10	55.6%
Subgroup 3—Aspectually or quantitatively unbounded contexts: 3 items, 49/54, 90.7%						
S6. Ma kirjutasin ____ kaks tundi.	aruannet	0	5	13	13	72.2%
S7. Ma jõin ____ terve õhtu.	vett	0	0	18	18	100%
S8. Mari istub praegu laua taga ja õmbleb ____.	kleiti	0	0	18	18	100%
PART II—Genitive contexts: 8 sentences, 129/144, 89.6%						
Subgroup 1—Completed resultative events in the simple past: 5 items, 83/90, 92.2%						
S9. Ta lõpetas ____ õigeks ajaks.	ülesande	0	17	1	17	94.4%
S10. Teadlane avastas ____.	uue planeedi	0	17	1	17	94.4%
S11. Ma uurisin ____ läbi.	raporti	0	17	1	17	94.4%
S12. Ta leidis kohe ____.	vastuse	0	16	2	16	88.9%
S13. Ma kinkisin sõbrale sünnipäevaks _____	kokaraamatu	0	16	2	16	88.9%
Subgroup 2—Resultative events in future contexts: 2 items, 30/36, 83.3%						
S14. Üliõpilane esitab ____ homme.	avalduse	0	14	4	14	77.8%
S15. Komisjon teeb ____ jaanuari lõpus.	lõpliku otsuse	1	16	1	16	88.9%
Subgroup 3— <i>da</i> -infinitive phrases functioning as clausal objects *: 1 item, 16/18, 88.9%						
S16. Ma tahan täna ____ läbi lugeda.	selle raamatu	1	16	1	16	88.9%
PART III—Nominative contexts: 8 sentences, 92/144, 63.9%						
Subgroup 1—Impersonal constructions: 3 items, 41/54, 75.9%						
S17. Parimale sportlasele antakse ____.	auhind	15	0	3	15	83.3%

Subgroup / Sentence	target-like choice	NOM	GEN	PAR	Target-like /18	%
S18. <i>Mulle kingiti sünnipäevaks ____.</i>	<i>uus kleit</i>	14	3	1	14	77.8%
S19. <i>____ arutati koosolekul läbi.</i>	<i>küsimus</i>	12	2	4	12	66.7%
Subgroup 2—Imperative constructions: 3 items, 36/54, 66.7%						
S20. <i>Too ____ kohe siia!</i>	<i>dokument</i>	13	4	1	13	72.2%
S21. <i>Palun ava ____, siin on palav.</i>	<i>aken</i>	11	5	2	11	61.1%
S22. <i>Paranda ____ ära, muidu sajab sisse.</i>	<i>katus</i>	12	5	1	12	66.7%
Subgroup 3— <i>da</i> -infinitive phrases functioning as clausal subjects or noun modifiers: 2 items, 15/36, 41.7%						
S23. <i>Meil tuleb ____ allkirjastada.</i>	<i>leping</i>	9	7	2	9	50.0%
S24. <i>Mul on unistus veel ____ ära õppida.</i>	<i>prantsuse keel</i>	6	9	3	6	33.3%
Overall target-like choices: 346/432, 80.1%					—	—

* GEN subgroup 3 contains one sentence only; treated as a structurally distinct item rather than a true subgroup with multiple items.

In the partitive contexts, the non-target-like nominative choices were mainly observed in specific constructions: the negative imperative construction and especially the impersonal construction, where 8 out of 18 informants selected the nominative. In genitive contexts, the partitive choices were the main non-target-like choices and had a stable and consistent presence across subgroups. In nominative contexts, both non-target-like genitive choices and partitive choices were notable and their presence differed across subgroups. The genitive was the dominant non-target-like choice in the imperative constructions and overwhelmingly the most common non-target-like choice in *da*-infinitive constructions: 7 out of 18 informants selected the genitive in S23 and 9 out of 18 informants selected the genitive in S24.

The following section examines the verbal reports produced alongside these choices in order to investigate the explicit knowledge and reasoning that informed them across the three case types.

4.2. Analysis

This section analyses the verbal explanations produced by the informants while they selected object case forms. Sentences are identified by the labels S1–S24, corresponding to their position as presented in Table 1. Informants are identified by the codes INF1 through INF18, while the interviewer is identified as QQ. Within each case-type section, answer options selected by the informants are listed after each sentence, with the number of informants in parentheses. Target-like choices and their associated verbal explanations are discussed first, followed by non-target-like choices.

The verbal report examples are presented in English translation, followed by the original Chinese in pinyin in parentheses. The translation was prepared by the researcher and the informants' intended meanings were represented as accurately as possible, although some imprecision in translation may occur and the translation may involve the researcher's interpretation. One informant INF11 verbalized in English, whose responses were presented without translation. Verbal explanation that was not relevant to the analysis or consists mainly of repeated fillers was omitted and marked as /.../. Pauses were not systematically marked, as the verbal explanations were generally brief and continuous in response to short task items.

The identified reasoning patterns during data analysis are presented in Table 2 as an overview before the sentence-level analysis in Sections 4.2.1–4.2.3. The patterns are divided into two groups: general reasoning patterns and specific reasoning patterns identified in *da*-infinitive constructions.

Table 2. Identified reasoning patterns and description

General reasoning patterns
Negation-based reasoning: The informant treats negation as relevant to object case selection. This may range from noticing a surface negative marker (<i>ei</i> or <i>āra</i>), through identifying the clause as negative, to explicitly stating the rule that negative clauses require partitive object marking.
Aspect-based reasoning: The informant interprets the event in terms of aspectual boundedness or unboundedness in both total object and partial object contexts. This may include descriptions of the action or the event as completed, finished, resultative, ongoing, continuous, habitual, unfinished, future-bounded, or lacking a clear endpoint. This pattern includes both accurate application of the aspectual condition and inaccurate application, in

which the informant invokes aspectual reasoning but misidentifies the aspect of the event or overgeneralizes this to nominative contexts.

Quantitative-boundedness-based reasoning: The informant discusses the object in terms of totality, partiality, wholeness, quantity, boundedness, specificity, definiteness, indefiniteness, concreteness, or identifiability. This pattern includes both accurate interpretation of the nature of the object and inaccurate interpretation, in which the informant misinterprets the quantitative boundedness of the object.

Two-condition-based reasoning: The informant explicitly refers to both the boundedness of the event and the quantitative boundedness of the object. This pattern is mainly relevant to total objects and represents a more integrated form of explicit reasoning. This pattern should not automatically be treated as complete mastery of the whole object-marking system, as informants using this pattern may still misapply one or both condition in other terms.

Partitive-verb-based reasoning: The informant classifies the verb as partitive verb. This may range from stating that the verb is normally followed by partitive, to explicitly stating that this verb is partitive verb. This pattern includes both identification of genuinely partitive verbs and overextension of the partitive-verb category to aspect verbs.

Construction-based reasoning (excluding the *da*-infinitive constructions): The informant treats one sentence construction as relevant to object case selection, which mainly includes the impersonal construction and imperative construction. The reasoning may range from a formulaic direct association between the construction and the case, to a more integrated explanation that also engages with other governing conditions.

Perfective-particle-based reasoning: The informant refers to the perfective particles (*läbi* or *ära*) and directly associates them with a case (typically genitive). It is presented mainly as a formulaic particle-to-case association, where the particle was identified as the primary factor for the informants to choose the case. The variations will be noted in sentence-level analysis.

Passive-framed subject-position reasoning (identified only in the subgroup of impersonal constructions): The informant describes an Estonian impersonal construction as *bèi dòng* ‘passive’ and explicitly treats the nominative object as subject or subject-like. It is coded separately from construction-based reasoning only in instances where both descriptions are observed from the verbal explanation. It may lead to target-like nominative choices, but the conceptual basis might be different.

Naturalness-based reasoning: The informant chooses a form mainly because it sounds right, familiar, fluent, or natural, without articulating a grammatical condition. This pattern is not treated as evidence of either explicit or implicit knowledge; it only indicates that no explicit grammatical reasoning was verbalized.

Specific reasoning patterns identified in *da*-infinitive construction:

General *da*-infinitive-to-nominative association: The informant recognizes the *da*-infinitive construction and associates this generally with nominative marking, without mentioning the syntactic function of the construction. In some cases, the aspectual interpretation is verbalized too.

Formulaic *da*-infinitive pattern reasoning: The informant relies on a memorized or recognized *da*-infinitive constructional pattern, such as *kellel tuleb* + object + *da-infinitive* and associates this pattern with one specific object case. This category is employed in instances where the explanation is pattern-based and does not involve verbalization of the syntactic function of the construction.

Syntactic-function-based reasoning: This pattern is only assigned in instances where the informant identifies the syntactic function of the *da*-infinitive construction and associates it with the case. This ranges from only the identification of the syntactic function to a more integrated explanation, engaging with aspect or the quantitative conditions of the object.

4.2.1. Partitive contexts

In Estonian, partitive object marking is required when at least one governing condition applies: clause negation, partitive verb and aspectual or quantitative unboundedness of the object (Erelt et al. 1993: 49–50; Erelt, Erelt & Ross 2020: 421–422; Metslang 2017: 264–265).

In the partitive contexts, six reasoning patterns were identified in the verbal reports: negation-based reasoning, aspect-based reasoning, partitive-verb-based reasoning, quantitative-boundedness-based reasoning, construction-based reasoning, and naturalness-based reasoning.

4.2.1.1. Negative clauses

The first subgroup contains two negative clauses: one declarative negative clause; one imperative negative clause.

S1. *Ma ei vaadanud* ____.

A. *etendus* (0); B. *etenduse* (0); C. *etendust* (18)

All 18 informants selected the target-like partitive case.

C. *etendust* (18)

- **Negation-based reasoning:**

Negation-based reasoning was the most frequently verbalized reasoning pattern. Fifteen informants directly identified the negation.

INF1: It is negative. Because there is negation, the object in a negative sentence should be in the partitive. (Tā shì fǒudìng. Yīnwèi yǒu fǒudìng, fǒudìng jù de bīnyǔ yīnggāi shì *osastav*.)

One informant recognized the negative marker *ei* and connected partitive with it.

INF3: This *ei*, what follows should take the third case. (zhège *ei*, zhège géshì hǎoxiàng shì hòubian yào gēn zhège dì-sān gé.)

- **Partitive-verb-based reasoning:**

Partitive-verb-based reasoning was observed in the verbal reports of two informants, who stated that the verb always takes partitive.

INF15: I choose C, because *vaatama* often goes with *mida*, so it is C. (Wǒ xuǎn C, yīnwèi *vaatama* jīngcháng huì jiā *mida*, suǒyǐ tā shì C.)

S2. *Ära esita* ____!

A. *avaldus* (3); B. *avalduse* (0); C. *avaldust* (15)

Fifteen informants selected the target-like partitive, while three chose the non-target-like nominative. No informant selected the genitive.

C. *avaldust* (15)

- **Negation-based reasoning:**

Negation-based reasoning was again the main reasoning pattern. 14 informants explicitly treated negation as the decisive factor to choose partitive case.

INF14: This is a negative imperative, so because it is negative, I would choose the third case. (Tā zhège shì yí ge fǒudìng de mìnglǐngjù, suǒyǐ fǒudìng dehuà wǒ huì xuǎnzé C xuǎnxiàng, jiùshì sān gé.)

One informant only mentioned the negative maker in imperative construction *ära*, and connected partitive with it.

INF3: I want to choose C. I remember that ‘*ära* do something’ need the third case. (Wǒ xiǎng xuǎn C, wǒ jìde zhīqián xuéguò zhège *ära* zuò shénme, yào jiā dì-sān gé.)

A. *avaldu* (3)

- **Construction-based reasoning:**

Construction-based reasoning was observed in two non-target-like nominative choices. These informants linked the imperative construction to nominative.

INF16: This is an imperative sentence. My feeling is that in imperative clauses you can directly use the nominative. (Zhè shì yí ge qíshǐjù, wǒ de gǎnjué jiùshì yīnggāi qíshǐjù zhíjiē yòng zhège zhǔgé dōu kěyǐ.)

- **Naturalness-based reasoning:**

Naturalness-based reasoning was observed in one non-target-like choice. INF15 connected negation with partitive, but selected the nominative because it sounded more natural.

INF15: Although I may have said before that negation takes the partitive. I still chose A, because A sounded more natural. (Wǒ zhīqián suīrán shuō le kěnéng, fǒuding yào, yào yòng zhège júgé, dànshì dì èrshí tí, wǒ hái shì xuǎn, yào xuǎn A, yòng dì-yī gé. Yuányīn shì dú de bǐjiào tōngshùn.)

Taken together, the two negative items show a high target-like rate and a clear dominance of negation-based reasoning. Most target-like choices were accompanied by verbalizations that connected negation, either at the level of the negative marker or the negative clause type, with partitive object marking. The few non-target-like choices in S2 were associated with construction-based or naturalness-based reasoning.

4.2.1.2. Lexical-aspectual partitive verbs

S3. *Mari harjutab iga päev tund aega* ____.

A. *viul* (0); B. *viuli* (2); C. *viulit* (16)

Sixteen informants selected the target-like partitive, while two informants selected the non-target-like genitive.

C. *viulit* (16)

- **Aspect-based reasoning:**

Aspect-based reasoning was one of the two main patterns among the target-like choices. Informants referred to the process or the habituality of the event, often mentioning the temporal expression *iga päev tund aega*.

INF1: First, it is an indicative sentence. Then it expresses a daily continuing state, so it should express the process. In an indicative sentence, if the object expresses process, it should be in the partitive, so I choose C. (Shǒuxiān tā shì zhíchénshì, ránhòu biǎoshì měitiān de yí ge chíchù de zhuàngtài, suǒyǐ tā yīnggāi shì biǎoshì guòchéng. Ránhòu zài zhíchénshì de jùzi lǐ biǎoshì guòchéng de bīnyǔ, tā yīnggāi shì *osastav*, suǒyǐ wǒ xuǎn C.)

- **Partitive-verb-based reasoning:**

Another frequently verbalized reasoning pattern is partitive-verb-based. Five informants identified *harjutama* as a verb that takes the partitive.

INF4: When I see the verb *harjutama*, I think it should combine with the partitive. /.../ In my previous learning experience, I seem to remember that some verbs fixedly require the partitive, and *harjutama* is one of them. (Zài wǒ kàndào *harjutama* zhège dòngcí de shíhou, wǒ rènwéi tā shì yīnggāi yào dāpèi bùfēn gé de. /.../zài wǒ guòqù xuéxí zhège yǔyán de jīngyàn lǐ, wǒ yìnxàng zhōng huì yǒu yí bùfēn dòngcí, tā shì huì gùdìng xūyào dāpèi bùfēn gé de. Wǒ yìnxàng zhōng hǎoxiàng *harjutama* shì shǔyú zhè lèi dòngcí de.)

One informant selected the target-like form mainly through a connection between *harjutab* *iga päev* with the partitive case.

INF3: I choose C because I feel that after *harjutab iga päev* it should be the third case. (xuǎn C, yīn wèi wǒ gǎn jué *harjutab iga päev* zhè gè hòu miàn yīng gāi shì yīng gāi gēn zhè gè dì sān ge gé.)

B. *viili* (2)

- **Quantitative-boundedness-based reasoning:**

One informant interpreted *violin* as concrete and specific and derived genitive from that, without engaging with the aspectual boundary of the event.

INF16: This violin he practices every day, this is, this one, a very specific, very concrete entity. (Tā měitiān liàn de zhège tíqín, jiùshì zhè yí ge, shì yí ge fēicháng jùtǐ, fēicháng jùtǐ de yí ge cúnzài.)

- **Aspect-based reasoning:**

INF5 chose genitive based on the judgement that this was a regular action. INF5 might have an inaccurate mapping between the interpretation of aspect and object case.

INF5: I choose B. I think spending an hour every day practicing it is a regular action. (Xuǎn B, wǒ juéde, měitiān huā shàng yí ge xiǎoshí qù liànxí tā, zhè shì yí ge chángguī xìng de dòngzuò)

S4. *Hindan inimeste juures eelkõige* ____.

A. *ausus* (0); B. *aususe* (1); C. *ausust* (17)

Seventeen informants selected target-like partitive case, while one informant selected non-target genitive case.

C. *ausust* (17)

- **Partitive-verb-based reasoning:**

Among the target-like selections, the most frequent reasoning pattern was partitive-verb-based reasoning. Seven informants identified *hindama* as a verb that takes partitive.

INF14: I choose C because I remember that the verb *hindama* should combine with the third case; it is a fixed combination. (Wǒ huì xuǎn zhège C xuǎnxiàng, yīnwèi zhège *hindama*, zhège dòngcí wǒ jìde tā yīnggāi shì gēn sān gé dāpèi de, tā shì nàge gùding dāpèi.)

- **Aspect-based reasoning:**

Aspect-based reasoning was another main reasoning pattern. Five informants chose partitive based on the judgement that this event was not completed or a general state.

INF7: I think it is a normal declarative, a fact, it is unfinished, so I choose partitive. (wǒ rèn wéi zhè shì yí gè pǔ tōng de chén shù jù, shì yí gè shì shí, tā shì wèi wán chéng de, suǒ yǐ wǒ xuǎn zé le bù fèn gé.)

- **Quantitative-boundedness-based reasoning:**

Another reasoning pattern observed in two informants is quantitative-boundedness-based reasoning. The object *ausus* was interpreted as an abstract quality rather than a definite referent.

INF8: I choose C. This is a quality, so it is not a complete quantity, not a complete and definite, whole. (Xuǎn C, zhège shì pǐnzhì, jiù bú shì wánzhěng shùliàng, bú shì wánzhěng de, quèqiè de.)

- **Naturalness-based reasoning:**

Three target-like choices were selected mainly based on naturalness or feeling with uncertainty.

INF3: I just feel that *ausust* is the smoothest. If you ask me to choose based on the verb or some prefix, I can't explain it. (*Ausust*, wǒ jiù juéde zhège *ausust* de zuì tōngshùn, wǒ dú le yí biàn wǒ juéde zhèlǐ *ausust* zuì tōngshùn, nǐ yào ràng wǒ kào qítā de dòngcí huòzhě qiánzhuì shénme de lái xuǎn, wǒ shuō bù shàng lái.)

B. *aususe* (1)

- **Naturalness-based reasoning:**

Only one informant chose a non-target-like genitive case through naturalness.

INF15: I choose B. I don't know how to explain it, but it feels like B should be right. (Wǒ xuǎn B, bù zhīdào gāi zěnme jiěshì, dànshì gǎnjué yīnggāi xuǎn B.)

S5. _____ *alustatakse tihti ilmast rääkimisega*.

A. *vestlus* (8); B. *vestluse* (0); C. *vestlust* (10)

Ten informants selected the target-like partitive, while eight selected the non-target-like nominative.

C. *vestlust* (10)

- **Partitive-verb-based reasoning:**

Among the ten target-like partitive responses, five informants explicitly identified *alustama* as a verb that takes the partitive.

INF10: I choose C.vestlust, Although many passive clauses take the nominative, here I first consider whether *alustama* is a verb that takes the partitive, so I choose C. (wǒ huì xuǎn C, *vestlust* suī rán zhè jù huà shì yí ge bèi dòng zhuàng tài qiě dà bù fèn bèi dòng jù zi dōu xū yào zhǔgé, dàn shì zhè lǐ wǒ huì shǒu xiān kǎo lǜ de shì dòngcí *alustama* shì bú shì yí ge chéng jiē júgé de dòngcí.)

- **Aspect-based reasoning:**

Two informants mentioned *tihti* and identified this event as repeated or habitual.

INF17: Because of *tihti*, then it means often, if something often happens, it must be C. (*Tihti*, nà kěndìng shì xuǎn C, yīnwèi tā yǒu ge *tihti*, jiùshì *often*, *often* dehuà, kěndìng jiùshì yòng dì-sān gé.)

- **Quantitative-boundedness-based reasoning:**

One informant interpreted the object referent *vestlus* as non-specific.

INF8: Usually, a dialogue starts from the weather, I choose C, because it is not a specific dialogue. (zhège duìhuà tōngcháng cóng tiānqì kāishǐ, nà jiù xuǎn C ba, yīnwèi shì bù quèdìng de duìhuà.)

- **Naturalness-based reasoning:**

Two informants arrived at the target-like form based on the feeling rather than a clearly formulated rule.

A. *vestlus* (8)

- **Construction-based reasoning:**

Six informants noticed the impersonal construction, often through the verb form, and associated it directly with nominative choice.

INF18: I choose A because there is *takse* here, and I feel that with this structure one should use the nominative. (xuǎn A, yīnwèi zhèlǐ yǒu *takse* zhège, wǒ juéde tā shì yào jiā zhǔgé de.)

INF3 chose nominative because the noun appeared at the beginning of the sentence, and INF5 based on the feeling.

Across the three items, target-like choices were mainly accompanied by partitive-verb-based reasoning and aspect-based reasoning, while quantitative-boundedness-based reasoning also appeared. S5 produced more non-target-like choices than S3 and S4, and these were mainly associated with construction-based reasoning triggered by the impersonal construction. Naturalness-based reasoning appeared in a small number of responses.

4.2.1.3. Aspectually or quantitatively unbounded contexts

The third subgroup consists of three sentences where the verb is the aspectual verb and the partitive is governed mainly by aspectual or quantitative unboundedness of the event or referent.

S6. *Ma kirjutasin ____ kaks tundi.*

A. *aruanne* (0); B. *aruande* (5); C. *aruannet* (13)

Thirteen informants selected the target-like partitive, while five selected the non-target-like genitive.

C. *aruannet* (13)

- **Aspect-based reasoning:**

Aspect-based reasoning was the most frequently verbalized pattern among target-like choices. Nine informants identified the event as ongoing, unfinished, or process-like.

INF1: It is an indicative sentence, and there is no word like *ära*, so it should not mean that I finished writing this thing. It means I wrote for a process, for two hours, so in an indicative sentence expressing process or incompleteness, the object should be *osastav*. (Tā shì yí ge zhíchénshì *indikativ*, ránhòu tā méiyǒu yí ge xiàng *ära* de zhè zhǒng cí, suǒyǐ tā yīnggāi bú shì biǎoshì wǒ xiěwán le zhège dōngxì, ér shì biǎoshì wǒ xiě le yí ge guòchéng, liǎng ge xiǎoshí, suǒyǐ zài zhíchénshì de yí ge biǎo guòchéng, biǎo wèi wánchéng de bīnyǔ de cí, tā yīnggāi shì wèi wánchéng, shì *osastav*.)

- **Partitive-verb-based reasoning:**

Four informants treated the verb *kirjutama* as the verb that always takes partitive case.

INF15: I chose C, because *kirjutama* always takes *mida*. (wǒ xuǎnzé C, yīn wèi *kirjutama* zǒng shì gēn *mida* yì qǐ de.)

B. *aruande* (5)

- **Aspect-based reasoning:**

Four non-target-like genitive selections arose from the misinterpretation of the aspect. They interpreted the action was finished or this event was completed.

INF7: I wrote this report for two hours. I think it is already completed. Then it is singular, so I would choose the genitive *aruande*. (Jiùshì wǒ xiě zhège bàogào xiě le liǎng ge xiǎoshí, wǒ juéde tā zhège yǐjīng shì, yǐjīng wánchéng le. Ng, ránhòu tā shì yí ge dānshù. Suǒyǐ wǒ huì xuǎnzé shǔgé *aruande*.)

INF6 selected the target-like choice through aspect-based reasoning too, but explicitly said that both B and C seemed possible under two different interpretations: if the action was completed or if the process has not ended. INF6 stated that the final choice was made mainly through the past tense *kirjutasin*: the action has already started.

INF6: I think both B and C could work here. I think the difference is that, if I finished writing this *aruanne* within the two hours, B is possible, but if I only wrote one part of this report, then C is also possible. Can I choose two options? I think they both work here. if I have to choose the most suitable one, I choose C. (Wǒ juéde zhè dào tí B hé C yīnggāi dōu kěyǐ ba, wǒ juéde tāmen de qūbié shì rúguǒ B xuǎnxiàng, wǒ bǎ zhège *aruanne* zài liǎng ge xiǎoshí nèi xiěwán le, dànshì rúguǒ wǒ zhǐ xiě le zhège bàogào de yí bùfēn, nà wǒ jiù huì xuǎn C. Dàn wǒ kěnéng gèng qīngxiàng yú xuǎn B, yīnwèi tā yòng de shì *kirjutasin*, jiùshì zhège dòngzuò yǐjīng kāishǐ le.)

- **Naturalness-based reasoning:**

One informant chose genitive based on intuition.

S7. *Ma jōin ____ terve õhtu.*

A. *vesi* (0); B. *vee* (0); C. *vett* (18)

C. *vett* (18)

All 18 informants selected the target-like partitive.

- **Partitive-verb-based reasoning:**

The most frequently verbalized reasoning pattern is partitive-verb-based. Eight informants treated *jooma* as a verb that always takes the partitive.

INF16: This is *vett*, because *jooma* takes the partitive. I remember that this is how we were taught before. /.../ when I see verbs like drinking or eating, I directly use the partitive after them. (dì shí yī tí. zhège shì *vett*, yīn wèi *jooma* tā shì jiē bùfēn gé de. wǒ jì de wǒ men yǐ qián shì zhè me jiào de, /.../ yù dào zhè zhǒng hē, chī zhè xiē dòngcí, wǒ zài hòu miàn jiù shì zhí jiē yòng bùfēn gé.)

Grammatically *jooma* itself is actually an aspect verb, which takes either partial or total objects.

- **Quantitative-boundedness-based reasoning:**

Four informants identified the referent *vesi* as quantitatively unbounded.

INF2: I think water is basically always partial. /.../ You cannot say you drank all the water. Unless you give it a unit, like this glass of water, but if you just say ‘water’, then I think it should be partitive. (wǒ jué de shuǐ zhège dōng xī wǒ jué de jī běn shàng dōu shì bù fēn, /.../ nǐ bù kě néng bǎ tā dōu hē wán ba, chū fēi nǐ gěi tā yí ge dān wèi bǐ rú shuō hē wán le zhè bēi shuǐ, dàn nǐ dān chún shuō shuǐ de huà wǒ jué de yīng gāi shì júgé.)

- **Aspect-based reasoning:**

Four informants interpreted this action as continuous, durative, non-completed.

INF7: I think what it wants to say is that he kept drinking water all evening, so I think it is emphasizing the continuity of the action. Without the ‘all night’ I might be sure, but it is ‘drinking water all night’, therefore I think it should be the continuous activity so C. (wǒ jué de tā xiǎng shuō de shì tā yí zhí zài hē shuǐ, suǒ yǐ wǒ rèn wéi tā zài qiáng diào zhège dòng zuò de lián xù, suǒ yǐ wǒ rèn wéi yīng gāi xuǎn wèi wánchéng shì, nà jiù shì

xuǎn c yīn wèi wǒ jué de zhǐ shì shuō ‘wǒ wǎn shàng hē le shuǐ’ de huà, wǒ kě néng hái bú huì jué de zěn me yàng, dàn tā shuō wǒ ‘yī wǎn shàng’ dōu zài hē shuǐ, wǒ jué de yīng gāi zhǐ de shì yí ge chí xù de dòng zuò.)

- **Naturalness-based reasoning:**

Two informants selected the target-like choice explicitly stating that *jōin vett* was commonly used.

INF15: *jōin vett*, everybody says it like that. (*jōin vett*, dà jiā dōu zhè me shuō.)

S8. *Mari istub praegu laua taga ja õmbleb* _____.

A. *kleit* (0); B. *kleidi* (0); C. *kleiti* (18)

All 18 informants selected the target-like partitive.

C. *kleiti* (18)

- **Aspect-based reasoning:**

The most frequently verbalized reasoning pattern is aspect-based, observed in thirteen informants' verbal reports. They identified the action as currently in process or uncompleted, often with the signal of the temporal adverb *praegu*.

INF14: I think C, because it says she is now sitting behind the table and sewing this dress, so I think the action is not finished, it is happening now and it is still going on, so I would choose the third case. (wǒ jué de xuǎn C, tā xiàn zài zuò zài zhuō zi hòu miàn, rán hòu zài biān zhī zhège qún zi. yīn wèi tā shuō shì xiàn zài tā zuò zài zhuō zi hòu miàn rán hòu zài zhī zhège qún zi, suǒ yǐ wǒ jué de tā zhège dòng zuò hái méi wánchéng, dòng zuò hái zài jìn xíng de suǒ yǐ wǒ huì xuǎn zé sān gé.)

- **Partitive-verb-based reasoning:**

Other informants reached the target-like case but through partitive-verb-based reasoning. They treated the verb *õmblema* should take partitive or may take partitive with uncertainty

INF9: Because this verb *õmbleb* seems to be a verb that only connects with the partitive. (yīn wèi zhège dòngcí *õmbleb* hǎo xiàng shì zhǐ lián jiē júgé de dòngcí.)

In these three items, target-like choices were mainly accompanied by aspect-based reasoning, and partitive-verb-based reasoning. S7 and S8 produced fully target-like choices, whereas S6 produced five non-target-like genitive choices. These non-target-like choices were mainly associated with a misinterpretation of the event as completed. Partitive-verb-based

reasoning caused target-like choices, but some aspect verbs were treated as partitive-taking verbs.

4.2.1.4. Synthesis

The eight partitive sentences produced a high overall target-like rate. The non-target-like choices of genitive and partitive were not consistent across sentences. The non-target-like nominative choices were mainly produced in S2 and S5, and S6 produced the most non-target-like genitive choices. The verbal reports showed that the reasoning patterns behind them.

In negative sentences, the governing factor negation was explicitly identified by almost all informants. This simple and transparent interaction between this factor and the case choice belongs to stable explicit knowledge of informants.

The reasoning patterns showed greater variations in affirmative sentences. Aspect-based and partitive-verb-based were the main reasoning patterns identified in the verbal report, which indicates that the knowledge about aspectual condition and the verb class were relatively accessible. Some target-like choices made through the partitive-verb-based reasoning was actually associated with the overextension of partitive-verb category to aspect verbs, mainly presented in S7, where the verb *jooma* was regarded as the verb that took partitive, which motivated the partitive marking.

The non-target-like nominative choices in imperative constructions and impersonal construction was related to the strong association of these two constructions with nominative. The overuse of nominative case in imperative and impersonal constructions was observed both in Pool (2010) and Ehala (2011), which indicates that this might be a common pattern for both learner groups, no matter how different their L1 background is.

The non-target-like genitive choices were mainly caused by the misinterpretation of the aspectual boundedness, where the informants treated this non-resultative event as completed.

4.2.2. Genitive contexts

The genitive total object in Estonian appears in finite declarative affirmative clauses where the event is aspectually bounded and the object is quantitatively bounded. Both conditions must be satisfied simultaneously (Erelt et al. 1993: 49–50; Erelt, Erelt & Ross 2020: 421–422; Metslang 2017: 264–265).

In the genitive contexts, the following reasoning patterns were identified in the verbal reports: aspect-based reasoning, two-condition-based reasoning, perfective-particle-based

reasoning, quantitative-boundedness-based reasoning, partitive-verb-based reasoning, and naturalness-based reasoning.

4.2.2.1. Completed resultative events in the simple past

S9. *Ta lõpetas ____ õigeks ajaks.*

A. *ülesanne* (0); B. *ülesande* (17); C. *ülesannet* (1)

Seventeen of the 18 informants selected the target-like genitive. One informant chose the non-target-like partitive.

B. *ülesande* (17)

- **Aspect-based reasoning:**

The most frequently verbalized reasoning pattern across the 17 target-like choices was aspect-based reasoning. Informants referred to the completion or endpoint of the event and the action.

Nine informants identified the event as already completed.

INF18: Because it has already ended. For something finished, use the genitive.
(Yīnwèi yǐjīng jiéshù, zuòwán de shìqíng yào yòng shǔgé)

INF7: The task was completed at the right time, so I think it is a completed action. In an indicative sentence expressing completion, and singular, I should use the second case.
(zhège rěnwù zài zhèngquè shíjiān lǐmiàn jiāo wán le, suǒyǐ wǒ rěnwéi tā shì wánchéng le zhège shìqíng)

Few informants also explicitly identified the inherent endpoint meaning of the verb *lõpetama*.

INF13: *Õigeks ajaks* helps distinguish completion from non-completion. *Lõpetama* itself already has completion meaning, and this *õigeks ajaks* makes it even clearer. (*õigeks ajaks* bāngzhù fēnbiàn shì wánchéng háishì wèiwánchéng, qíshí wǒ juédé zhège lõpetama, tā běnshēn yǔyì shàng yě dàibiǎo yīdìng de wánchéng de hányì.)

- **Two-condition-based reasoning:**

The second frequently verbalized reasoning pattern is the two-condition-based reasoning, which involved both governing conditions: the event was completed and the object referent was definite and delimited.

INF15: I choose B, because it is completed, and the task is not a part but the whole task. (wǒ xuǎn B, yīn wèi tā wánchéng le, jiù shì zhège rèn wù bú shì yī bù fèn, ér shì zhěng gè rèn wù, suǒ yǐ wǒ xuǎn B.)

INF9 identified this event ‘certain’ or ‘definite’ without the ability to further explain, but it can be inferred that might associate with the two governing factors

INF9: I choose B /.../ This concept is too abstract, but this matter itself is certain. (yīng gāi xuǎn B, wǒ jué de zhège gài niàn hěn chōu xiàng, dàn shì zhège shì qíng shì quèdìng de.)

QQ: what does this *certain* mean? (nǐ shuō de quèdìng, zhǐ de shì shén me?)

INF9: For example, *I ate an apple*, then that matter can be considered certain. (bǐ rú shuō wǒ chī wán le yí ge píng guǒ, nà zhège shì qíng jiù suàn quèdìng de.)

The gap between acquired language and the ability to express and articulate that knowledge may be illuminated here.

- **Naturalness-based reasoning:**

INF3 was the only one informant that relied on naturalness and feeling

C. *ülesannet* (1)

- **Partitive-verb-based reasoning.**

The only non-target-like choice was the partitive, which was chosen based on the partitive-verb-based reasoning. This informant treated this verb as the verb only take partitive verb.

INF5: This verb should take the partitive case if it takes an object. (yīn wèi zhè ge dòng cí hòu miàn jiā, nà ge bīn yǔ, nà me zhè ge gé jiù shì bù fèn gé.)

S10. *Teadlane avastas* ____.

A.*uus planeet* (0); **B.***uue planeedi* (17); **C.***uut planeeti* (1)

Seventeen of the 18 informants selected the target-like genitive. One informant INF2 chose a non-target-like partitive.

B.*uue planeedi* (17)

- **Aspect-based reasoning:**

Aspect-based reasoning pattern was again the most frequently verbalized one. Eleven informants referred to the completion of the action and derived genitive from it.

INF4: The action of discovering the new planet happened in the past and is already over, this process ended and the event is complete, so I choose the genitive. (tā fā xiàn le zhège xīn de xīng qiú de zhège xíng wéi, shì yí ge fā shēng zài guòqù de yí ge xíng wéi. dàn shì zhège xíng wéi, yǐ jīng jié shù le, yǐ jīng shì fā shēng zài guòqù le de. zhège guò chéng jié shù, xíng wéi wán zhěng le, nà wǒ huì xuǎn B, shǔgé.)

One informant reached genitive mainly through the verb's aspect, identifying that the action has an inherent ending point.

INF13: I am not sure actually, but if i have to choose one, i would choose B, because normally if the verb does not require a special partitive case, I would choose B because its meaning is not long-lasting; it can be completed in a short time.(wǒ bú shì hěn quèdìng zhège dòngcí yào dài shén me gé, rú guǒ ràng wǒ méng yí ge de huà, wǒ huì xuǎn B, jiù shì àn cháng lǐ lái shuō, rú guǒ zhège dòngcí tā bú yào qiú yí ge tèdìng de gé de huà, wǒ huì xuǎn B, yīn wèi zhège dòngcí tā de yǔ yì bú shì yí ge zhǎng shíjiān chí xù de dòngcí, tā shì kě yǐ duǎn shíjiān zhī nèi wánchéng de.)

- **Two-condition-based reasoning:**

The two-condition-based reasoning was seen in five informants' verbal reports.

INF10: The verb is *avastama*, it is completed, and *uue planeedi* is a whole. (dòngcí shì *avastama*, yǐ jīng wánchéng le ér qiě *uue planeedi* shì zhěngtǐ de.)

- **Quantitative-boundedness-based reasoning:**

INF16 applied a quantitative-boundedness-based reasoning, identifying the object referent as a whole, unique and concrete entity, without any statement related to the action or the verb.

INF16: The new planet is one thing, and it is a whole; you can't say that this planet is fragmented and scattered. It is a unified whole, and there is only one of it. (xīn de xīng qiú shì yí ge dōng xī, ér qiě tā shì yí ge zhěngtǐ, jiù shì bù néng shuō tā zhège xīng qiú shì qī líng bā suì de, shì yí ge tǒng yī de zhěngtǐ, ér qiě tā shì zhǐ yǒu yí ge.)

C.*uut planeeti* (1)

- **Naturalness-based reasoning:**

One informant made the choice mainly based on what sounded more natural.

S11 *Ma uurisin* ____ *läbi*.

A. *raport* (0); B. *raporti* (17); C. *raportit* (1)

Seventeen of the 18 informants selected the target-like genitive form *raporti*. One informant chose the non-target-like partitive based on naturalness.

B. *raporti* (17)

- **Aspect-based reasoning:**

The most frequently verbalized reasoning pattern observed in this sentence was aspect-based reasoning. Informants referred to the completion of the action, and treated *läbi* as the primary cue.

INF14: The word *läbi* shows that the action has been completed, so I choose B. (wǒ huì xuǎn zé zhège B xuǎn xiàng, shì yīn wèi tā zuì hòu de zhège *läbi* zhège cí biǎo shì tā zhège dòng zuò yǐ jīng wánchéng le, jiù shì tā yǐ jīng yán jiū wán zhège bào gào le, suǒ yǐ zhège dòng zuò yǐ jīng jié shù le, suǒ yǐ yòng èr gé.)

- **Two-condition-based reasoning:**

Three informants presented the two-condition-based reasoning pattern. They verbalized that the event was completed, with *läbi* as a primary cue and the object was a whole.

INF10: *Läbi* signals completion of the action, and when the action is completed and the object is whole, I choose the genitive. (wǒ huì xuǎn zé zhège B xuǎn xiàng, shì yīn wèi tā zuì hòu de zhège *läbi* zhège cí biǎo shì tā zhège dòng zuò yǐ jīng wánchéng le, jiù shì tā yǐ jīng yán jiū wán zhège bào gào le, suǒ yǐ zhège dòng zuò yǐ jīng jié shù le, suǒ yǐ yòng èr gé.)

INF17 explicitly noticed the *uurima* was actually partitive verb and then explained that *läbi* changes the interpretation toward completion. The object referent was interpreted as specific and the event as completed.

INF17: Normally *uurima* takes partitive, but with *läbi*, a specific object and a completed action it can be B. (*uurima* zhège dān cí jiù shì yì bān shì jiē *mida*, dàn shì tā hòu biān yǒu le nàge *läbi*, tèdìng de nà zhǒng bīnyǔ, dòng zuò wánchéng de huà nà kě néng jiù xuǎn B.)

- **Perfective-particle-based reasoning:**

Five informants associated *läbi* and genitive, applying a formula-like *läbi*-to-genitive reasoning.

INF5: If there is *läbi*, then use genitive. (yǒu l bi de huà, nà me qián miàn jiù yào yòng yí gè shǔ gé.)

C. *raportit* (1)

- **Naturalness-based reasoning:**

The only non-target-like case was chosen by INF3, applying the same naturalness-based reasoning.

S12. *Ta leidis kohe*_____.

A. *vastus* (0); B. *vastuse* (16); C. *vastust* (2)

Sixteen of 18 informants selected the target-like genitive case, while two informants selected the non-target-like partitive case. One noticeable distinction observed in this sentence is the arising of the identification of the aspect of the verb *leidma*.

B. *vastuse* (16)

- **Aspect-based reasoning:**

The most frequently verbalized reasoning pattern in this sentence is same aspect-based reasoning. Informants explicitly stated the event was completed and derived genitive from it.

INF18: It has already found the answer, so because it is in a completed state, I choose the genitive. (tā yǐ jīng zhǎo dào le zhège dá àn, suǒ yǐ yǐ jīng wánchéng de zhuàng tài wǒ jiù xuǎn shǔ gē.)

- **Two-condition-based reasoning:**

The two-condition-based reasoning pattern was observed in few informants. These informants verbalized both main factors relevant for the target-like genitive in this item: the event was completed, and the answer was understood as a whole, definite, or specific object.

INF6: That is something happened in the past, he found the answer, so this action is over, /.../ The answer is a specific answer, it is definite. (zhè shì yí ge fā shēng zài guòqù de xíng wéi, tā mǎ shàng jiù zhǎo dào le dá àn, zhège xíng wéi wánchéng le, /.../, zhè shì yí ge mǒu yí ge tèdìng de dá àn, shì yí ge tè zhǐ de.)

- **Quantitative-boundedness-based reasoning:**

The quantitative-boundedness-based reasoning was applied again by one informant INF16, who identified the object as a definite and unique entity.

INF16: I think it is genitive because the answer is a unique thing. There cannot be other answers; there is just one answer. (yīn wèi zhège dá àn suàn shì wéi yī de yí ge cún zài. bù kě néng yǒu qí tā dá àn, jiù yí ge dá àn. zhège dá àn shì wéi yī de, fēi cháng unique.)

C. *vastust* (2)

- **Partitive-verb based reasoning:**

The two non-target choices came from INF3 and INF5. INF5 misidentified the verb *leidma* as the verb that take partitive case

INF5: I chose *vastust* because I felt *leidis* is followed by partitive. [wǒ gǎnjué *leidis* hòumiàn yěxǔ jiā yīgè bùfèngé (wǒ xuǎnzé *vastust*, shì yīn wèi wǒ jué de *leidis* hòu miàn yīng gāi jiē fēn cí xíng shì.)

- **Naturalness-based reasoning:**

INF3 based on the naturalness.

S13. *Ma kinkisin sõbrale sünnipäevaks* _____

A. *kokaraamat* (0); B. *kokaraamatu* (16); C. *kokaraamatut* (2)

Sixteen of 18 informants selected the target-like genitive case, while two informants selected the non-target-like partitive case.

B. *kokaraamatu* (16)

- **Aspect-based reasoning:**

Among the target-like case selections, the most frequently verbalized reasoning pattern is still aspect-based. Informants verbalized that the event has completed.

INF2: I think this action that giving a gift has already been completed, so I choose B. (jiù shì wǒ jué de sòng lǐ zhège dòng zuò tā yǐ jīng wánchéng le. suǒ yǐ xuǎn B.)

- **Two-condition-based reasoning:**

Four informants relied on the two-condition-based reasoning, explicitly stated that the event was completed, and the book was understood as a whole object

INF10: Genitive, because the verb *kinkisin* is in the past tense, the action is completed, and the book here is a whole object. (shǔgé, yīn wèi dòngcí *kinkisin* shǐ yòng guòqù shí tài, biǎo shì dòng zuò wánchéng le ér qiě zhè lǐ de shū shì yí ge zhěngtǐ.)

As also observed in INF10's verbal report, in this sentence, the past tense might be strongly connected with the action's completion.

Four informants also explicitly mentioned that the action *kinkima* has internal endpoint.

INF13: *Kinkima* is a quick action. A quick action, that doesn't continue for a long time, and the item being given is a very specific quantity, which is a book. These two factors

combined lead to the selection of option B. (*kinkima* tā shì yí gè shùn shí dòng zuò, shùn shí dòng zuò, bú shì zhǎng shí jiān chí xù, zài jiā shàng gěi de dōng xī shì yí gè hěn míng què de liàng, yī běn shū, hěn míng què , zhè liǎng gè yīn sù jiā qǐ lái xuǎn B.)

- **Quantitative-boundedness-based reasoning:**

The consistent quantitative-boundedness-based reasoning was applied again by INF16, identifying the cooking book as unique and definite, without any explicit statement about other factors

- **Others:**

INF5 regarded suffix *-ks* (*sünnipäevaks*) as the cue for genitive, which, however, led INF5 to the target-like choice.

C. *kokaraamatut* (2)

- **Partitive-verb-based reasoning:**

INF3 explicitly treated *kinkima* as a verb that takes the partitive.

- **Quantitative-boundedness-based reasoning:**

INF8 interpreted the book not as one specific book but as a more general or indefinite book, which led INF8 to choose partitive

INF8: I gave a book, but it is not clear which book; it is just a general kind of book, so I choose the third case. (wǒ sòng le shū, bù quèdìng de, bù quèdìng de nǎ běn shū, zhǐ shì shuō yí ge dà lèi de shū, xuǎn dì sān gè.)

Across the five items, target-like genitive choices were mainly accompanied by aspect-based reasoning. Two-condition-based reasoning appeared in several responses but was less frequent than aspect-based reasoning. Quantitative-boundedness-based-reasoning was even less but consistently applied by few informants. Perfective-particle-based reasoning was especially prominent in S11, where *läbi* functioned as a primary cue for almost everyone. Non-target-like choices were few and were associated with the misidentification of aspect verb as partitive verb, the naturalness or the misinterpretation of the quantitative boundedness of the object referent.

4.2.2.2. Resultative events in the future contexts

S14. *Üliõpilane esitab* _____ *homme*.

A. *avaldus* (0); B. *avalduse* (14); C. *avaldust* (4)

Fourteen of eighteen informants selected target-like genitive case, while four informants selected non-target-like partitive case

B. *avalduše* (14)

- **Aspect-based reasoning:**

The most frequently verbalized reasoning pattern is still aspect-based reasoning. Four informants stated that the action would be completed in the future and derived genitive from it.

INF14: It is an objective fact that the student will do this tomorrow. This thing will definitely be completed, so I choose B. (tā shì yí ge kè guān shì shí, jiù shì tā míng tiān jiù huì zuò zhège shì qíng. zhège shì qíng yí dìng huì wánchéng de, suǒ yǐ wǒ xuǎn de shì 2 B xuǎn xiàng.)

Three informants identified the aspect of the event from the aspect of the verb. They clearly stated *esitama* has an inner ending point

INF7: *Esitama* is not a continuous action. You can not keep doing it. I think this is a completed event. I choose B. (*esitama*, wǒ juéde jiù bùshì kě chíxù de dòngcí. Tā bù néng chí xù jìn xíng, suǒ yǐ wǒ rèn wéi zhè shì yí gè wán chéng de shì qíng, xuǎn B.)

INF6 showed clear uncertainty and stated that both partitive and genitive worked here under different interpretations. INF6 stated that the result of the event was not clear since it has not happened.

INF6: I am uncertain between B and C. If they will definitely submit the *avalduš* tomorrow, that is genitive. But it is in the future, so it has not been completed. but if I have to choose one, I chose B. (wǒ zài B hé C zhī jiān nà bù dìng zhǔ yì. rú guǒ tā men míng tiān kěn dìng huì tí jiāo *avalduš*, nà shǔ yú shǔgé. dàn zhè shì wèi lái shì, suǒ yǐ shàng wèi wánchéng. zuì hòu wǒ hái shì qīng xiàng yú xuǎn B.)

- **Two-condition-based reasoning:**

Two-condition-based reasoning pattern was identified in verbal reports of four informants, who stated that the event would be completed and the object was a whole complete referent.

INF10: The action will be completed quickly, and the object is a complete object. (zhège dòng zuò hěn kuài jiù huì wánchéng, ér qiě zhège bīnyǔ shì wán zhěng de.)

- **Quantitative-boundedness-based reasoning:**

Quantitative-boundedness-based reasoning pattern appeared in INF8 and INF16, whose target-like choice derived from the identification of the object as definite, concrete, or specific.

INF8: Definitely this is a specific *avalduš*. (kěndìng shì yí ge què qiè de *avalduš*.)

- **Naturalness-based reasoning:**

INF3 and INF15 relied mainly on familiarity or naturalness.

C. *avalduš* (4)

- **Aspect-based reasoning:**

Among the four non-target-like partitive case selection, two informants explicitly stated that the action was not completed yet, which led them to choose partitive.

INF4: *homme*, so this will happen tomorrow, so the action is not completed yet. If it is not completed, I use the partitive. (*Homme* shì yí ge jiāng yào fā shēng zài míng tiān, fā shēng zài jiāng lái de zhèyàng de yí ge xíng wéi. nà zhège xíng wéi jiù shì hái méi yǒu wánchéng. hái méi yǒu wánchéng de huà, wǒ yòng C, bùfēn gé.)

- **Partitive-verb-based reasoning:**

Partitive-verb-based reasoning pattern was seen in two informants who treated verb *esitama* as partitive verb and derived partitive from it.

S15. *Komisjon teeb ____ jaanuari lõpus.*

A. *lõplik otsus* (1); B. *lõpliku otsuse* (16); C. *lõplikku otsust* (1)

Sixteen of eighteen informants selected target-like genitive, one informant INF15 chose the non-target-like nominative based on the naturalness with clear uncertainty and one informant chose non-target-like partitive case.

B. *lõpliku otsuse* (16)

- **Aspect-based reasoning pattern:**

Aspect-based reasoning pattern is again the most frequently verbalized. Informants stated that this event has an ending point, often through the temporal adverb *jaanuari lõpus*.

INF13: I will choose B. *Tegema* is not a verb that necessarily takes partitive. The temporal anchor *jaanuari lõpus* tells us grammatically that the event has a completion point in the future, so I choose B. (*tegema* tā bùshì yīgè yīdìng xūyào júgè de nàzhǒng

dòngcí. Rúguǒ nǐ zài hòumiàn yǒu yīgè yǔfǎ shàng de jaanuari lõpus jiùshì yǔfǎ shàng biǎoshì tā de tā zài wèilái shì yǒu yīgè wánchéng wánchéng diǎn de huà)

- **Two-condition-based reasoning:**

Two-condition-based reasoning was observed in the verbal reports of three informants. They clearly stated that the event would be completed in the future, and the object was a whole and concrete entity.

INF10: There is a clear time point, *jaanuari lõpus*, so the action will be completed and the *otsus* is a whole. (zhè lǐ gěi le míng què de shíjiān, *jaanuari lõpus* yí yuè dǐ, suǒ yǐ zhège huì zài shíjiān fàn wéi nèi wánchéng, ér qiě *otsus* shì yí ge zhěngtǐ.)

- **Quantitative-boundedness-based reasoning:**

INF16 applied the quantitative-boundedness-based reasoning again, stating that the object ‘final decision’ as a definite one, which led INF16 to the genitive case.

- **Naturalness-based reasoning:**

Naturalness-based reasoning was in INF3 and INF5, who chose the target-like genitive mainly because it felt right.

C. *lõplikku otsust* (1)

- **Aspect-based reasoning:**

One informant selected partitive based on the judgement that the event has not been completed yet.

In the two items, the target-like rate was still high and the most frequently verbalized ones were still aspect-based and two-condition-based. Non-target-like partitive choices were associated with interpreting the event as incomplete because it had not yet occurred.

4.2.2.3. *da*-infinitive phrases functioning as clausal objects

S16. *Ma tahan täna ____ läbi lugeda.*

A. *see raamat* (1); B. *selle raamatu* (16); C. *seda raamatut* (1)

Sixteen of eighteen informants chose target-like genitive while one informant chose non-target-like nominative case and one informant chose non-target-like partitive case.

B. *selle raamatu* (16)

- **Perfective-particle-based reasoning:**

The most frequently verbalized reasoning pattern is perfective-particle-based reasoning, when informants directly associated the perfective particle *läbi* with the genitive case. Seven informants directly linked the particle *läbi* into genitive without further explanation

INF11: *Läbi lugema. Läbi, so it is selle raamatu. (Läbi lugema. Läbi, nä jõu shi selle raamatu.)*

Some informants added further explanation that *läbi* signaled the completion of the event or the total object case selection.

INF13: If it were only *lugema*, I would choose C, but with *läbi* it expresses completion, so I choose B. (*läbi lugeda* ru guo zhi shi *lugema* de hua wo hui xuan C, dan shi ta jia le yi ge *läbi* de hua, jiu shi biao shi wancheng.)

These explanations suggested the association between the perfective particle and the completion of the event. The *da*-infinitive construction was not mentioned as the governing factor in any of these responses. Whether they were also aware of the structural condition cannot be concluded from these verbalizations alone, but what the verbal reports show was that the particle provided a salient and accessible cue leading to genitive.

- **Syntactic-function-based reasoning:**

INF10 was the only one explicitly verbalizing the syntactic function of the *da*-infinitive construction and combining with the interpretation of the event as bounded and the object as a whole.

INF10: The verb is not a partitive verb and this is not an unfinished action and the whole book is not partial, so it will not be a partitive case. Since *läbi lugeda* itself functions as the object phrase here, under this condition, the singular object should be genitive, plural object should be nominative. (yin wei zhe li bu shi zhi lian jie jugé de dongci, er qie ta biao shi de bu shi wei wancheng de dong zuo, er qie yi zheng ben shu bu shi biao shi bu fen de, suo yi bu hui shi jugé. zhe li de *läbi lugeda* ben shen jiu shi ju zi de binyu, na zhe zhong qing kuang xia, ying gai jie de jiu shi shuge, dan shu jiu shi shuge, fu shu jiu shi zhuge.)

- **Quantitative-boundedness based reasoning and naturalness-based reasoning:**

Quantitative-boundedness based reasoning was observed in verbal reports of two informants INF4 and INF8, who clearly treated the object *raamat* as specific and whole.

INF3 made the choice based on the feeling.

A. *see raamat* (1)

- **General *da*-infinitive-to-nominative association:**

INF1 stated two combines conditions: the event had a result and the object was the recipient of the *da*-infinitive and associated them with nominative.

INF1: *Läbi lugeda*, so this expresses a result. And it is the recipient of the *da*-infinitive action. As the recipient of a *da*-infinitive action expressing a result, under these two conditions, I think it is nominative. (*läbi lugeda*, suōyǐ shì biǎo jiéguǒ, ránhòu tā shì *da*-infinitiiv de dòngzuò de shòushì zhě)

C. *seda raamatut* (1)

- **Partitive-verb-based reasoning:**

INF2 treated verb *tahtma* as partitive verb and stated that the partitive verb should be given to the highest priority.

INF2: I choose C because *tahtma* takes the partitive. Even though there is *läbi*, if several factors appear in one sentence, one of them has priority, and I think the partitive-taking verb has higher priority. (xuǎn C ba. yīn wèi *tahtma* zhège dòngcí shì jié júgé de, jí shǐ yǒu *läbi* zhège cí zài zhè ér, dàn shì qián miàn yǒu *tahtma* zhège júgé dòngcí, suǒ yǐ zhège júgé dòngcí shì bú huì bèi qí tā yǐng xiǎng de. tā shì zài wǒ de sī wéi lǐ, tā shì yǒu yōu xiān jí de.)

In this sentence, the high target-like rate was achieved primarily through perfective-particle-based reasoning: most informants associated *läbi* with genitive without engaging with the *da*-infinitive construction's syntactic function. Only one informant produced integrated verbalization that directly addressed its syntactic function and also mentioned other governing conditions. The two non-target-like choices were caused associated with a general *da*-infinitive-based nominative association and partitive-based reasoning.

4.2.2.4. Synthesis

The genitive section produced the highest overall target-like rate across three case types. The non-target-like choices were few and partitive was the most consistent non-target-like choice across the eight items. S14 produced the most non-target-like partitive choices.

The verbal reports showed aspect-based reasoning was the most frequently verbalized pattern in this section. Most informants completed, bounded, or endpoint-oriented events with genitive marking. This suggests that aspectual boundedness was a broadly accessible condition

in the informants' verbalized explicit knowledge. The non-target-like partitive choices in S14 and S15, where the completion would reach in the future, were mainly associated with interpreting future events as incomplete and the results unclear because it had not happened yet. This suggests that, for some informants, the aspectual condition was available as explicit knowledge but was temporally restricted—genitive marking was associated with events that had already been completed rather than with events construed as bounded.

Verbal reports also showed that genitive marking was often associated with only one condition rather than with the two conditions required for total-object marking. Two-condition reasoning, where informants explicitly verbalized both event boundedness and referent boundedness, appeared less frequently.

Perfective particles functioned as highly salient cues. In S11 and S16, particle *läbi* was frequently associated with genitive marking. Especially in S16, the *da*-infinitive construction was seldom mentioned, however, the strong association between *läbi* and genitive case was verbalized by most informants.

Partitive was the most consistent non-target-like choice in genitive contexts, which is consistent with Pool's (2005, 2006, 2007, 2010) and Ehala's (2009) finding that L1 Russian learners had an overuse of partitive in total-object contexts. They were mainly associated with three reasoning patterns: aspect-based reasoning that informants reading future events as incomplete rather than future-bounded, partitive-verb-based reasoning that informants treating the aspect verb as partitive verb, and quantitative-boundedness-based reasoning, where informants misinterpreted the object referent as indefinite.

4.2.3. Nominative contexts

The nominative total object in Estonian is part of the same total object system as the genitive total object. The two conditions for a total object also apply to nominative contexts just as they do to genitive contexts: aspectual boundedness of the event and quantitative wholeness of the object referent. What distinguishes nominative from genitive within this system is the construction type: in impersonal constructions, imperative clauses and *da*-infinitive phrases functioning as grammatical subjects or modifiers, the total object takes nominative rather than genitive (Erelt et al. 1993: 49–50; Erelt, Erelt & Ross 2020: 421–422, 425; Metslang 2017: 264–265).

In the nominative contexts, the following reasoning patterns were identified in the verbal reports: construction-based reasoning, passive-framed subject-position reasoning, aspect-

based reasoning, perfective-particle-based reasoning, quantitative-boundedness-based reasoning, partitive-verb-based reasoning, and naturalness-based reasoning.

4.2.3.1. Impersonal constructions

Before proceeding to the sentence-level analysis, a notable phenomenon that consistently occurred through the entire subgroup, was that most informants referred to the impersonal voice as *bèi dòng* ('passive'), while few informants used right Chinese term for impersonal or the Estonian term *umbisikuline tegumood*. In Chinese passive construction, the patient is topicalized by the morpheme *bèi* to subject position while an agent, either overt or implied, typically remains present in the construction (Li & Thompson 1981: 493–496). The impersonal voice in Estonian does not involve promotion of a patient argument to subject position or demotion of an agent. It is an impersonal construction in which no agent argument exists syntactically, and the nominative object marking is a property of the construction type itself, not a consequence of argument promotion (Erelt et al. 1993: 51–52).

The distinction between passive and impersonal exists in Estonian, but for the purpose of this study, I will still use the term *impersonal* in the analysis while the term *bèi dòng* 'passive voice' is treated as part of the informants' learner-side reasoning.

S17. *Mulle kingiti sünnipäevaks* _____

A. *uus kleit* (14); B. *uue kleidi* (3); C. *uut kleiti* (1)

Fourteen of the 18 informants chose the target-like nominative form *uus kleit*. Three informants chose non-target-like genitive while one chose non-target-like partitive

A. *uus kleit* (14)

- **Construction-based reasoning:**

Construction-based reasoning was the main observed pattern. Within this pattern, the explanations showed clear variations.

Most informants directly associated the construction with nominative and clearly stated that the object case should be nominative in this construction. It presented as a formulaic impersonal-construction-to-nominative association.

INF18: I chose A because I remember that in passive sentences this case needs to be nominative. (dì yí ge tí wǒ xuǎn A, yīn wèi wǒ jì de zhège bèi dòng jù de zhège gé xū yào yòng zhǔgé de xíng shì.)

Five informants produced more integrated verbalizations, identifying the construction and stated other governing factors related the verb class, the completion of the event or the boundedness of the object referent.

INF11: The first question, I picked A. This sentence is a typical impersonal clause. Basically, if this is an impersonal sentence, I will first consider what kind of verb that verb is, so in Estonian, because there are a lot of verbs to express emotions, to express a kind of psychological phenomenon, for this kind of verbs, the object can never be a total object. But here, it's *kinkima*, it is not those verbs, so absolutely, the answer is A.

INF17: Someone gave me a new dress for birthday. The dress is a concrete thing, and the action was completed, so it should be nominative. (shēng rì de shí hòu sòng gěi wǒ yī tiáo xīn qún zi, nàge qún zi shì yí ge quèdìng de dōng xī, rán hòu yě shì sòng wán le de, yīng gāi yòng zhǔgé.)

- **Passive-framed subject-position reasoning:**

Another frequently verbalized reasoning pattern was passive-framed subject-position reasoning, treating the sentence as a passive construction and constructing *uus kleit* as filling the subject position.

INF2: *kingiti* shows that it is passive, something was gifted to me, so this position of this word in this sentence should be the subject. This book was given to me as a birthday gift. (*kingiti* biǎo shì tā shì bèi dòng de, jí mǒu wù bèi zèng sòng gěi wǒ, yīn cǐ zhège cí zài jù zi zhōng de wèi zhì yīng gāi shì zhǔ yǔ. zhè běn shū shì zuò wéi shēng rì lǐ wù sòng gěi wǒ de.)

C. *uus kleiti* (1)

- **Quantitative-boundedness-based reasoning:**

INF8 chose the partitive through identifying the referent as non-specific without mentioning the construction type.

INF8: This is a direct object, mostly I will consider whether it is whole or not a whole, it is part or not a part, it is specific or not specific, but here this dress is not a specific dress, so I will use partitive case (zhè shì yí ge zhí jiē bīnyǔ, wǒ zhǔ yào huì kǎo lǜ tā shì zhěngtǐ hái shì fēi zhěngtǐ, shì zhěngtǐ de yī bù fèn hái shì bú shì bù fèn, shì fǒu zhǐ dìng de, dàn zài zhè lǐ zhè jiàn yī fú bìng bú shì zhǐ dìng de, suǒ yǐ wǒ jiāng shǐ yòng bùfēn gé.)

B. *uue kleidi* (3)

- **Quantitative-boundedness-based reasoning:**

This reasoning was observed in the verbalization of INF15, but the judgement went in the opposite direction from INF8. INF15 interpreted the object as definite, which led to the genitive case without taking the construction into consideration

INF15: I choose B because only one dress was given and it is clear which dress it is. (yīn wèi zhǐ sòng le yī jiàn qún zi, rán hòu yě bǐ jiào qīng chǔ shì nǎ jiàn qún zi, suǒ yǐ wǒ xuǎn B.)

- **Naturalness-based reasoning:**

Two informants chose the genitive based on the feeling with uncertainty and no identification of the governing factors.

S18. *Parimale sportlasele antakse* ____.

A. *auhind* (15); B. *auhinna* (0); C. *auhinda* (3)

Fifteen of eighteen informants selected the target-like nominative form *auhind*. Three informants selected non-target-like partitive.

A. *auhind* (15)

- **Construction-based reasoning and Passive-framed subject-position reasoning:**

The two most frequently verbalized reasoning patterns paralleled S17: construction-based reasoning: the informants identified this construction through verb form and derived nominative from it; passive-framed subject-position reasoning: the informants constructed *auhind* as filling the subject position within the passive construction.

INF14: I think this is passive, so I will still choose A, takse indicates passive, so nominative. (wǒ jué de zhège shì bèi dòng, wǒ hái shì huì xuǎn zé A xuǎn xiàng ba, jiù shì zhège takse tā biǎo shì yí ge bèi dòng, suǒ yǐ yòng yī gé.)

INF4: The award appears as the subject in this sentence, so when the sentence lacks a subject, so I choose A. (zhège jiǎng lì zài zhè jù huà lǐ shì zuò wéi yí ge zhǔ yǔ chū xiàn de, nà wǒ huì xuǎn zé A xuǎn xiàng.)

Five informants also produced a more integrated explanation, identifying the construction type and taking the aspectual boundedness of this sentence or the quantitative boundedness of the object into consideration.

INF17: *Antakse*, I chose A, because it is impersonal and ‘give the prize to the best athlete’, it belongs to the *lõpetatud tegevus*. (nà kěn dīng xuǎn A, zhè shì nàge impersonal ma, rán hòu gěi zuì hǎo de yùn dòng yuán yí ge jiǎng, shì nà zhǒng *lõpetatud tegevus*.)

C. *auhinda* (3)

- **Quantitative-boundedness-based reasoning:**

Two informants chose partitive based on the judgement that the referent *auhind* was indefinite or unspecific.

INF6: I am very hesitant between A and C. I noticed *antakse*, but I am not sure whether this is a whole, very specific award or just a general statement that the best athlete will be given some award. It is not a very fixed context, so I think it is a case of just generally speaking, and I will choose C. (zài zhè ér wǒ hěn jiū jié dào dǐ shì A hái shì C, yīn wèi wǒ zhù yì dào *antakse*, wǒ bù quèdìng zài zhè ér shì bú shì shì yí ge zhěngtǐ, hái shì yīng gāi fēi cháng suí yì de shuō, dào dǐ shì zǒng tǐ shàng lái shuō huì gěi tā yí ge jiǎng xiàng, hái shì shuō gěi zuì bàng de yùn dòng yuán zhè gù dīng de jiǎng xiàng, tā bìng méi yǒu yí ge fēi cháng gù dīng de yǔ jìng, suǒ yǐ wǒ huì xuǎn zé de shì C.)

- **Naturalness-based reasoning:**

One informant relied on familiarity with uncertainty.

S19. ____ *arutati koosolekul läbi*.

A. *küsimus* (12); B. *küsimuse* (2); C. *küsimust* (4)

Twelve of the 18 informants chose the target-like nominative form *küsimus*. Six informants chose non-target-like case.

Verbal reports on this sentence showed much more variation compared to the other impersonal sentences, mainly because of the perfective particle *läbi* and the partitive verb *arutama*.

A. *küsimus* (12)

- **Construction-based reasoning:**

Among the target-like selections, construction-based reasoning was still the main pattern. The informants identified the impersonal construction and associated nominative with that. Some informants also mentioned the particle *läbi* was a signal for the completion of the event and integrated this condition into explanation.

INF10: This is a passive sentence and also the adverb *lābi* expresses the state of completion. Since it is passive and completed, I will choose nominative. (zhège shì gè bèidòng jù, ránhòu fùcí lābi biǎoshì dòngzuò wánchéng zhuàngtài, yòu shì bèidòng yòu shì yǐjīng wánchéng, zhège wǒ hái shì xuǎn zhǔgé ba).

For learners who associated *lābi* with genitive, the particle creates a competing signal against the construction's association with nominative. Some informants regarded the perfective particle *lābi* as a signal to choose genitive but finally chosen genitive because the construction rule might need to be prioritized.

INF18: here the verb ends in *ti*, that is passive, so nominative case /.../ I think the *ti*, the rule is stronger than the rule that *lābi* requires genitive. (zhè lǐ dòngcí yǐ - ti jié wěi, jí bèi dòng, yīn cǐ wéi zhǔgé /.../ wǒ jué de yǒu zhège *ti* de zhège wú zhǔ yǔ de zhège yǔ fǎ guī zé yīng gāi jiù shì huì qiáng yú zhège *lābi* yào yòng shǔgé de zhège guī zé ba.)

Two informants INF11 and INF13 also distinguished between *arutama* and *arutama lābi*, addressing that *arutama* was partitive verb, which entails partitive object but the particle *lābi* changed the condition.

INF11: The sentence is also the impersonal clause. And *arutati lābi*, there is a specific article. It is not *arutama*. If it is *arutama*, I remember *arutama mida*. But it is *arutama lābi*, so the object should be a total object, and because this is an impersonal clause, the answer is nominative.

B. *küsimuse* (2)

- **Perfective-particle-based reasoning:**

Among the six non-target selections, the direct association between *lābi* and genitive case was the main reason. Two informants clearly stated two association: *lābi* with genitive case; impersonal construction with nominative case and applied the former association.

INF16: According to my previous method I would directly choose the nominative, because this is a *takse* sentence. But there is *lābi* at the end. I feel a little hesitant. Because this sentence emphasizes that the question has been thoroughly resolved at the meeting, so I think the genitive case can also be used. According to my own theory I will choose genitive. (àn zhào wǒ zhī qián de fāng fǎ de huà, wǒ huì zhí jiē xuǎn zhǔgé, yīn wèi tā zhè lǐ shì yí ge *takse* de jù zi. dàn shì tā hòu miàn yǒu gè *lābi*. wǒ jué de yǒu diǎn jiū jié, yīn wèi tā zhè lǐ qiáng diào de shì zhège wèn tí zài huì yì shàng yǐ jīng bèi ché dǐ de nòng míng bái le. suǒ yǐ wǒ jué de shǔgé yě shì yǒu yí dìng dào lǐ. nà wǒ hái shì xuǎn shǔgé.)

C. *küsimust* (4)

- **Partitive-verb-based reasoning:**

Two informants INF9 and INF15 recognized *arutama* as the partitive verb and chose partitive case without engaging with the perfective particle and the impersonal form.

INF9: I remember that this verb ‘discuss’ takes partitive. (wǒ jì de tāo lùn zhè gè cí , yīng gāi yào jiā jú gé de).

- **Quantitative-boundedness-based reasoning:**

One interpreted the object *küsimus* as unspecific and indefinite, which led to choosing a partitive case.

- **Naturalness-based reasoning:**

One informant INF3 relied on the naturalness.

Across the three impersonal items, target-like nominative choices were mainly accompanied by construction-based reasoning. The variation was that some informants directly associated the impersonal construction with nominative, while some also produced more integrated verbalization related with the demonstration of the aspect, the verb’s type or the quantitative boundedness of the object.

A noticeable pattern runs across all the three impersonal sentences, which is that the majority of informants consistently described the impersonal construction as passive construction. The passive-framed subject-position reasoning was also consistently used by some informants. Few informants used the right term, and notably, these informants stated more integrated verbal explanations.

Non-target-like choices were associated with quantitative-boundedness-based reasoning, where informants interpreted the object referent as non-specific or indefinite and connected it with partitive case, or as specific and definite and connected it with genitive case; naturalness-based reasoning, and, in S19, perfective-particle-based reasoning. The *läbi*-to-genitive association was notable in many informants’ verbal explanation as a competing factor to impersonal-to-nominative association and was given to a higher priority.

4.2.3.2. Imperative constructions

S20. Too _____ *kohe siia!*

A. *dokument* (13); B. *dokumendi* (4); C. *dokumenti* (1)

Thirteen of the 18 informants chose the target-like nominative form *dokument*. Four informants chose non-target-like genitive while one informant chose partitive.

A. *dokument* (13)

- **Construction-based reasoning:**

Among the thirteen target-like nominative choices, construction-based was the main reasoning pattern. Most identified the imperative construction and derived nominative from it.

The strong association between imperative and nominative was presented like a formula rule in verbal reports of some informants, without other factors taken into consideration.

INF14: I choose A because this sentence is an imperative clause, and in imperative clauses you use the first case. (wǒ huì xuǎn zé A xuǎn xiàng, shì yīn wèi zhège jù zi shì yí ge mìnglǐng jù, zài mìnglǐng jù de shí hòu, zài zhège qíng kuàng xià shì yòng zhège dì yī gé.)

Some informants stated a more integrated explanation as in the impersonal section, also mentioned other factors like the verb's type or referential's quantitative boundedness.

INF13: I choose A because it is imperative, and imperative clauses generally take nominative, unless the verb requires a different case. But this verb does not seem to be such a case. (xuǎn A ba, yīn wèi tā shì mìng lǐng, mìnglǐng jù tōng cháng lái shuō dōu shì yào gēn nominative, duì de, chū fēi tā dòngcí shì yāo qiú yào gēn bié de gé, dàn shì zhège hǎo xiàng bú shì zhè zhǒng qíng kuàng.)

INF6: It is an imperative mood, /.../I would choose A, because if this entire document is brought here. I would consider it as a whole, and in the imperative mood I would select A. (tā shì yí ge mìng lǐng shì de yí ge yǔ tài, /.../ wǒ xiǎng xuǎn de shì A, yīn wèi bǎ zhè yī zhěng fèn zhège wén dǎng dōu dài guò lái de huà, wǒ huì jué de tā yīng gāi shì yí ge zhěngtǐ, rán hòu zài mìng lǐng shì yǔ tài dāng zhōng, wǒ xiǎng xuǎn jiù shì A xuǎn xiàng.)

B. *dokumendi* (4)

- **Quantitative-boundedness-based reasoning:**

INF4 and INF9 stated that the referent was specific and a whole, which led them to choose genitive without mentioning the effect of construction

INF4: The imperative sentence has a clear directionality, It specifies exactly which document is meant, a particular document known to both parties. Since it is a specific entity, I choose B. (tā zhège qíshǐ jù shì yǒu míng què de chuán dá mìng lǐng de rén hé jiē shòu mìng lǐng de rén de zhǐ xiàng xìng, tā huì míng què zhǐ xiàng zhège wén dǎng jù

tǐ shì nǎ yī fèn wén dàng. suǒ yǐ tā shì tèdìng de zhèyàng de yí ge wù pǐn de huà, wǒ huì xuǎn zé B.)

- **Construction-based reasoning:**

Among the four non-target genitive choices, INF2 held an explicitly stated but inaccurate rule: the singular object was marked in genitive in imperative construction.

INF2: This is an imperative clause. In imperative clauses, singular takes genitive and plural takes nominative. (zhè shì yí ge qíshǐ jù, qíshǐ jù dān shù de huà, yīng gāi shì shǔgé, rán hòu shì fù shù de huà yòng zhǔgé.)

It is not an absence of knowledge about the imperative construction but a systematically inaccurate explicit rule.

- **Naturalness-based reasoning:**

INF3 chose genitive based on the naturalness.

C. *dokumenti* (1)

- **Quantitative-boundedness-based reasoning:**

The only informant INF8 chose partitive, based on the judgement that the object was not specific and possibly not a whole entity.

INF8: The sentence does not specify exactly what document it is. It might be just part of a document, so partitive. (tā zhège méi yǒu míng què shuō dào dǐ shì shén me wén dàng, kě néng shì yī bù fèn wén dàng, qíshǐ jù fēi zhěngtǐ de yòng shén me lái zài zhè? è, bùfēn gé, duì, jiù shì yòng dì sān gé.)

S21. *Palun ava _____, siin on palav.*

A. *aken* (11); B. *akna* (5); C. *akent* (2)

Eleven of the 18 informant chose the target-like nominative form *aken*. five informants chose non-target-like genitive while two informants chose non-target-like partitive

A. *aken* (11)

- **Construction-based reasoning**

Among the eleven target-like choices, most informants associated the imperative construction with nominative, applying a similar imperative-to-nominative formula rule.

INF15: Choose A, because it is the imperative sentence. (xuǎn zé A, yīn wèi tā shì qíshǐ jù.)

The more complete explanation was also consistently verbalized by some informants, taking the verb's aspect or the nature of the referent.

INF12: This is an imperative sentence, and it is also a total object, because you open this whole door. (zhè shì yí ge qíshǐ jù, tóng shí tā yě shì yí ge wánquán bīnyǔ, yīn wèi nǐ bǎ zhèng gè mén dǎ kāi.)

INF7: This is an imperative clause, so I choose nominative. The verb *avama* is also more oriented toward completion, it is non-continuative, opening a window is a non-continuative action. (zhè shì yí ge qíshǐ jù, suǒ yǐ wǒ huì xuǎn zé zhǔgé. wǒ rèn wéi *avama* zhège cí yě shì yí ge piān xiàng yú wánchéng de duō, jiù tā shì bù kě chí xù de, dǎ kāi chuāng zhè shì yí ge bù kě chí xù de dòng zuò.)

B. *akna* (5)

- **Quantitative-unboundedness based reasoning:**

Among the five non-target genitive choices, three informants applied the quantitative-unboundedness based reasoning, arguing that the referent 'window' was a specific and definite entity

INF4: Opening that specific window, this is a public piece of information between the two speakers, so I choose *akna*. (dǎ kāi zhège tèdìng de mǒu yī shàn chuāng hù, zhège shì yí ge gōng zhī xìn xī, nà me xuǎn zé *akna*.)

- **Naturalness-based reasoning:**

Two informants based on the feeling that they used genitive case in similar structure.

C. *akent* (2)

- **Naturalness-based reasoning:**

INF2 chose partitive case also based on the feeling that partitive form sounded more correct, even though INF2 clearly stated that nominative was always used in imperative construction.

- **Others:**

INF11 argued that *palun ava akent* was also acceptable grammatically when the speaker intended a temporary action—open the window for a while.

INF11: /.../ If the speaker just wants to express, just do this thing for a while, the object can also be marked by partitive /.../ But here, maybe I would select C, but I think A is also correct.

In Estonian, the partitive object is indeed possible in an imperative clause when the action is construed as partial or temporary (Erelt, Erelt & Ross 2020: 422). However, this rule did not apply in this situation.

S22. *Paranda _____ ära, muidu sajab sisse.*

A. *katus* (12); B. *katuse* (5); C. *katust* (1)

Twelve of the 18 informants chose the target-like nominative form *katus*. Six informants chose non-target-like forms, while five chose genitive form and one chose partitive form.

As observed in sentences with perfective particles, the particle *ära* functioned for many informants as a primary cue for the selection of genitives. In imperative construction, this phenomenon also existed.

A. *katus* (12)

- **Construction-based reasoning:**

The imperative construction was associated to the nominative case, with the support of the particle *ära*, mostly as the signal of completion or total object context.

INF13: I choose A partly because it is an imperative clause, which requires a nominative in most cases. The verb is *parandama*, I am not sure which case the verb takes, but I saw *ära*, then it is A, without *ära*, I might not be so sure. (yí ge shì zhè lǐ shì mìnglǐng jù, mìnglǐng jù dà bù fèn qíng kuàng xià xū yào nominative, dòngcí shì *parandama*, *parandama* qí shí wǒ yě bú shì hěn quèdìng tā shì dài shén me gé de, nà wǒ jiù wǎng hòu kàn ma, wǒ kàn kàn yǒu yí ge *ära*, nà xuǎn A, rú guǒ rú guǒ méi yǒu *ära* de huà wǒ hái zhēn bù tài quèdìng.)

INF17: *Ära* signals a total object, and this is an imperative clause, so nominative. (*ära* zhège dōng xī de cún zài tí shì le wǒ men yào yòng total object, rán hòu tā yòu shì nàge qíshǐ jù, hòu miàn de bīnyǔ jiù yào yòng dì yī gé.)

The direct imperative-to-nominative association was also observed in few informants.

INF15: choose A, because it is imperative. (xuǎn zé A, yīn wèi tā shì qíshǐ jù.)

The statement of imperative construction and *ära* perfective particle functioning as two competing signals were observed in the verbal reports of two informants. The imperative construction was prioritized.

INF14: I see *ära* and I have the impulse to choose B, because like *läbi*, *ära* expresses that an action will be completed, so I consider genitive. But then I notice there is no subject

before the verb, so I give priority to it being an imperative clause and choose nominative. (wǒ shì zài kàn zhège āra wǒ huì yǒu xiǎng xuǎn B de yī zhǒng gǎn jué, shì yīn wèi jiù xiàng qián miàn dì èr shí yī tí, tā chū xiàn lǎbi, jiù shì lǎbi hé āra zhè zhǒng cí tā huì biǎo dá yī zhǒng dòng zuò huì wánchéng de gǎn jué, suǒ yǐ wǒ huì kǎo lǜ yòng èr gé, dàn shì zhège dì fāng wǒ yòu fā xiàn tā qián miàn dòngcí shì méi yǒu zhǔ yǔ de, suǒ yǐ wǒ huì gèng yǒu xiān kǎo lǜ tā shì yí ge mìnglìng jù ba, suǒ yǐ yòng yī gé.)

B. *katuse* (5)

- **Perfective-particle-based reasoning:**

Among the five non-target-like genitive choices, a direct connection between *āra* and genitive was stated by three informants without engaging the imperative construction

INF5: I just automatically choose genitive if there is *āra*. (nà hái shì wúnǎo xuǎn, wúnǎo xuǎn shǔgé. jiù shì yǒu āra.)

- **Quantitative-boundedness-based reasoning and naturalness-based reasoning:**

One informant based on the judgement that the referent ‘roof’ was specific and definite without engaging the imperative construction. One informant relied on the naturalness.

C. *katust* (1)

- **Partitive-verb-based reasoning:**

INF2 was the only one chosen partitive, treating *parandama* as a partitive verb and explicitly stated that the verb type is the highest-priority factor, overriding construction-type rules.

INF2: I think *paranda* is a partitive verb, isn’t it? /.../ I feel that regardless of the sentence type, the verb always has the highest priority, so if it is a partitive verb, it should take partitive in any sentence. (wǒ jué de *paranda* hǎo xiàng shì gè júgé dòngcí, shì bú shì? /.../ wǒ jué de wú lùn shì shén me jù zi, dòngcí yǒng yuǎn shì zuì zhòng yào de. suǒ yǐ wǒ jué de, rú guǒ tā shì yí ge júgé dòngcí, jiǎ rú shuō tā shì de huà, wǒ jué de tā wú lùn chū xiàn zài shén me jù zi lǐ, tā dōu yīng gāi jiē júgé.)

Across the three imperative items, target-like nominative choices were mainly accompanied by construction-based reasoning. Some directly associated the imperative construction with the nominative, presenting like an imperative-to-nominative formula, while some informants simultaneously considered other factors like verb type or quantitative boundedness of the referent, which produced a more integrated verbal explanation.

Those non-target-like genitive choices are mainly associated with quantitative-boundedness-based reasoning, where informants chose genitive based on the judgement that the object referent was specific, concrete or definite without engaging with the imperative construction, and some informants misinterpreted the referent as non-specific or indefinite and derived partitive from that. The perfective-particle-based reasoning was mostly seen in S22, where the association between *ära* and genitive was overextended or even overrode the association between the imperative construction and nominative case. Another main pattern was naturalness-based, where informants were uncertain and made the choice because it ‘felt’ right or ‘sounded’ right.

4.2.3.3. *da*-infinitive phrases functioning as clausal subjects or noun modifiers

A nominative total object is required when the *da*-infinitive construction functions as the clausal subjects or the modifier (Erelt, Erelt & Ross 2020: 425; Metslang 2017: 272).

S23. *Meil tuleb ____ allkirjastada.*

A. *leping* (9); B. *lepingu* (7); C. *lepingut* (2)

Nine of eighteen informants selected target-like nominative form *leping*. Seven informants chose the genitive *lepingu* and two chose the partitive *lepingut*.

A. *leping* (9)

- **Formulaic *da*-infinitive pattern reasoning:**

Four informants described it as a memorized pattern: (*kellel*) *tuleb* + *da*-infinitive.

INF14: If *kellel tuleb* is followed by a *da*-infinitive, it requires the first case. For me this is a fixed structure. (*Kellel tuleb hõnne määra ruumide jaoks da bündingshi de huà, tā jiù shì děi yòng yī gé. duì wǒ lái shuō zhè shì gè gù dìng jié gòu.*)

- **Syntactic-function-based reasoning:**

These informants stated explicitly that the *da*-infinitive construction functioned as the subject in the sentence.

INF10: The *da*-infinitive *allkirjastada* is led by *tulema*. There is a rule that when the *da*-infinitive and its object function as the subject in the sentence, nominative is used. (*da-infinitiiv bündingshi allkirjastada shì yóu tulema yǐn dǎo de, yǒu zhèyàng yī ge guī dìng ba, dāng dòngcí da-infinitiiv bündingshi hé yǐn dǎo de bīnyǔ zài jù zì zhōng zuò zhǔ yǔ shí, yòng zhǔgé.*)

- **General *da*-infinitive-to-nominative association:**

While another two informants also recognized the *da*-infinitive construction and the total-object status but only associated this with nominative.

INF12: /.../ this is the object of the *da*-infinitive, and it is a total object. (zhè shì da bùdìngshì de bīnyǔ, ér qiě shì yí ge quánbù bīnyǔ.)

B. *lepingu* (7)

- **Aspect-based reasoning:**

Those informants interpreted the event as bounded without engaging the *da*-infinitive construction.

INF18: It emphasizes that an action must be completed, this action will in any case eventually reach a completed state, so I choose genitive. (tā qiáng diào de shì bì xū yào wánchéng yī jiàn shì qíng, nà zhège shì qíng tā wú lùn rú hé dào zuì hòu dōu shì yǐ jīng bèi wánchéng de yí ge zhuàng tài, suǒ yǐ wǒ xuǎn shǔgé.)

- **Quantitative-boundedness-based reasoning:**

The informants interpreted the object referent as specific and definite.

INF4: We have to sign this contrast. This contrast is a specific and definite contrast. (wǒ men bì xū qiān shǔ zhè fèn hé tóng. zhè fèn hé tóng shì yī fèn jù tǐ qiě míng què de hé tóng.)

C. *lepingut* (2)

- **Partitive-verb-based reasoning:**

INF2 and INF15 both chose partitive through treating *allkirjastama* as a partitive verb or always took partitive case.

S24. *Mul on unistus veel ____ ära õppida.*

A. *prantsuse keel* (6); B. *prantsuse keele* (9); C. *prantsuse keelt* (3)

Six of the 18 informants chose the target-like nominative form *prantsuse keel*. Nine informants chose the non-target like genitive *prantsuse keele* and three chose the partitive *prantsuse keelt*.

A. *prantsuse keel* (6)

- **Syntactic-function-based reasoning:**

One informant identified that the *da*-infinitive construction functioned as an attribute to *unistus*.

INF10: /.../ When the *da*-infinitive functions as a *täiend* attribute, *sihitis* takes *nimetav*.
(/.../ zài *da* bùdìngshì lǐ miàn zuò *täiend* bǔ yǔ shì, *sihitis* wèi *nimetav* zhǔgé xíng shì.)

- **General *da*-infinitive-to-nominative association:**

The informants mentioned that this event had a result and recognized the *da*-infinitive construction and associated nominative with this condition.

INF1: It is the object of *da*-infinitive. There is *ära öppida* so it demonstrated that the action has a result, so *da*-infinitive and there is a result, it should be nominative. (shǒu xiān tā shì yí gè *da*-infinitive de bīn yǔ, rán hòu zhè lǐ yǒu gè *ära öppida*, suǒ yǐ tā biǎo shì jié guǒ, suǒ yǐ yí gè shì *da*-infinitive, yí gè shì jié guǒ, suǒ yǐ, tā shì zhǔ gé.)

- **Formulaic *da*-infinitive pattern reasoning:**

The informants chose nominative based on the memorized similar sentence structure: *kellel on* + *noun* + *da*-infinitive.

INF14: /.../ *kellel on* followed by a *da*-infinitive, I think the answer is A. (*kellel on* hòu miàn jiā shàng *da* bùdìngshì, suǒ yǐ wǒ jué de yīng gāi shì suàn A xuǎn xiàng de.)

B. *prantsuse keele* (9)

- **Perfective-particle-based reasoning:**

The particle *ära* functioned as a direct trigger for genitive.

INF6: Because I see *ära*, I will choose B decisively. (yīn wèi wǒ kàn dào le *ära*, suǒ yǐ wǒ huì hěn jiǎn jué de xuǎn B xuǎn xiàng.)

- **Aspect-based reasoning:**

The informants identified the event as completed, often through the particle *ära*.

INF7: If there is *ära*, I think the action is completed, it has the meaning of completion, so I would choose genitive B. (wǒ jué de rú guǒ shì *ära*, wǒ rèn wéi zhègè shì qíng shì xué wán, jiù shì yǒu nàgè wánchéng de yì si, suǒ yǐ wǒ rèn wéi wǒ huì xuǎn zé genitive B.)

C. *prantsuse keelt* (3)

- **Partitive-verb-based reasoning:**

The informants chose partitive case by treating *öppima* as partitive verb.

INF4: learn a language, this learning, *öppima* should take partitive case. (xué xí yǔ yán, zhè gè xué xí, *öppima* zhè gè dòng cí yīng gāi dā pèi bù fèn gé)

These two *da*-infinitive nominative items produced the lowest target-like rate across the subgroups. Across them, target-like choices were accompanied by different reasoning. Some relied on a memorized pattern like: (*kellel*) *tuleb* + object + *da*-infinitive in S23 and *kellel on* + noun+ *da*-infinitive construction in S24. Some target-like choices were also associated with a broader *da*-infinitive-to-nominative association, while only a small number of informants integrated the analysis of the *da*-infinitive's syntactic function.

Among the non-target-like case selections, the non-target-like genitive choices were mainly accompanied by aspect-based reasoning, or quantitative-boundedness-based reasoning, where the informants referred to the completion of the event or the quantitative boundedness of the referent. Perfective-particle-based was mainly observed in S24, where the perfective particle *āra* was mainly directly associated with the genitive case. while non-target-like partitive choices were associated with partitive-verb-based reasoning or naturalness-based reasoning.

4.2.3.4. Synthesis

The nominative section produced the lowest overall target-like rate among the three case types. All subgroups produced relatively lower target-like rate, with the *da*-infinitive subgroup producing the lowest rate of all subgroups. The presence of both the non-target-like genitive choices and partitive choices was consistent across sentences. Genitive was the dominant non-target-like choice in subgroup 2 and subgroup3, and S24 produced the most non-target-like genitive choices in this section.

The main reason for those non-target-like choices was related to the insufficient coordination of total-object conditions with the constructional conditions that requires nominative. Non-target-like genitive choices were mainly associated with the aspect-based, perfective-particle-based and the quantitative-boundedness-based reasoning, without engagement with the construction. The strong association between the perfective particles and genitive held by some informants was notable. The non-target-like partitive choices were less frequent and were mainly associated with the overextension of the partitive-verb category to aspect verbs, the misinterpretation of the object as indefinite or non-specific and the naturalness.

In the impersonal and imperative items, construction-based was the main pattern underlying target-like choices. Within the pattern, the verbal reports show consistent variation in how the governing system was addressed. Some informants chose the target-like choice directly based on the formulaic association between the construction and the nominative: impersonal-to-nominative or imperative-to-nominative. Relatively fewer informants stated that association

and integrated other governing factors related with the total-object status, including the verb's aspect, the event boundedness or the quantitative boundedness of the object.

In the *da*-infinitive subgroup, more informants chose the target-like choice through a formulaic *da*-infinitive pattern like *kellel + tuleb + da*-infinitive or *kellel on + noun + da*-infinitive, while some had a broader association between the object in *da*-infinitive construction with nominative. Few informants reached the target-like nominative choice through the recognition of the syntactic function of the *da*-infinitive construction.

A notable observation running through the impersonal subgroup was the label of impersonal construction as passive construction. Under this passive framing, some informants regarded the object as in the subject position and chose the target-like nominative, without engaging with the total-object conditions. Ehala (2011) explained the L1 Russian learners' overuse of nominative in partitive-required subjectless constructions as the reanalysis of the object as the subject probably influenced by the English passive. In the present study, verbal reports provided evidence that L1 Chinese learners applied a similar reanalysis, explicitly framing the impersonal construction as the Chinese passive (*bèi dòng*).

4.3. Summary of findings

Across the 24 sentences, the overall target-like case choice rate was 80.1% (346/432). Partitive and genitive contexts produced comparable and relatively high target-like rates (86.8% and 89.6% respectively), while nominative contexts produced a considerably lower rate (63.9%). Within the nominative section, the *da*-infinitive subgroup produced the lowest rate of all subgroups (41.7%). The rates in another other two nominative subgroups (75.9% and 66.7%) were also relatively lower across all subgroups.

These quantitative results may suggest a broad accuracy hierarchy that is related to the complexity of governing conditions: Partitive can be reached through a single transparent condition (negation) and/or the verb class (partitive verb) and/or aspectual unboundedness of the event and/or quantitative unboundedness of the object; genitive contexts require the integration of two semantic conditions, while nominative contexts add a structural layer onto it. *da*-infinitive constructions require analysis of their syntactic function, which is more complex than the other conditions.

The verbal reports showed that most informants drew on accessible explicit knowledge when making case selections in this task, though the depth and completeness of that knowledge varied across informants and across construction types.

Three dimensions of variation were consistent across all three case-type sections: the degree to which multiple governing conditions were integrated in a single explanation; the extent to which salient surface cues were used in place of multiple combined conditioning factors; and the accuracy with which aspectual and quantitative-boundedness conditions were applied.

In partitive contexts, negation-based, aspect-based and partitive-verb-based reasoning were the most frequently observed patterns. Negation functioning as a single, salient and transparent condition was highly accessible. This pattern is consistent with what DeKeyser (2005: 3–10) described about the form-meaning mapping: a single transparent form-meaning mapping is easier to be acquired for L2 learners.

By contrast, aspect-based and partitive-verb-based reasoning showed more variation. The variation in the aspect-based reasoning was mainly observed in S6 (*Ma kirjutasin _____ kaks tundi.*), where the non-target-like genitive choices were mainly associated with reading the event as completed. What affected their judgement could not be identified from the verbal report alone, but one possible explanation is that the temporal limit *kaks tundi* misled them to interpret the event as temporally completed rather than non-resultative. This suggests that the explicit knowledge of aspectual boundedness was not always accurate and complete.

Some target-like partitive choices were actually caused by the overextension of the partitive-verb category to aspect verbs, observed in all three items in Chapter 4.2.1.3, particularly for the high-frequency verb *jooma* ‘to drink’. This suggests that these learners might have internalised a formulaic surface association between a specific verb and a case form, but have not connected this to the underlying aspectual conditions that would allow more creative usage across new contexts. The high level of non-target-like nominative choices in S5 was mainly associated with the overgeneralization of the association between impersonal construction and nominative case marking.

In genitive contexts, the non-target-like choices were relatively few and both nominative case and partitive case had a consistent and stable presence across items. Aspect-based reasoning was the most frequently verbalized pattern, and in most cases, it was sufficient to produce a target-like choice. Most informants explicitly connected the completion or resultativity of an event with genitive marking. The two-condition-based pattern, where both aspectual boundedness and quantitative boundedness of the object were explicitly addressed, appeared less frequently, but consistently concentrated in a small number of informants across multiple sentences. Quantitative-boundedness-based reasoning, where only the quantitative boundedness condition was referred, was verbalized even less frequently. This does not establish that informants who only verbalized one condition lack of the explicit knowledge

about the other conditions because the verbal report data show only what was articulated. However, it does indicate that aspectual boundedness functioned as the primary and more readily accessible condition in many informants' explicit knowledge, with the quantitative boundedness remaining less accessible.

The perfective particle *läbi* consistently functioned as highly salient cues for genitive in the genitive section, particularly in S11 (*Ma uurisin ____ läbi*) and *da*-infinitive construction S16 (*Ma tahan täna ____ läbi lugeda*). In S16, most informants directly associated *läbi* with genitive, without addressing the syntactic function of the *da*-infinitive phrase. Only one informant (INF10) produced an integrated verbalization that addressed the syntactic function alongside the aspectual and quantitative conditions of the object. The particle-to-genitive association happened to produce the right result, but for a reason that does not generalize across contexts in which other governing conditions are also involved.

The non-target-like choices in the genitive section were relatively few and fell into three main types: aspectual misinterpretation, particularly in S14 (*Üliõpilane esitab ____ homme*), where events were read as incomplete rather than as bounded; overextension of the partitive-verb category to aspect verbs, where aspect verbs were treated as lexically partitive verbs; and the misinterpretation of the quantitative boundedness, where a definite and delimited object was read as indefinite or non-specific. The explicit knowledge of aspectual boundedness and quantitative boundedness of the object was accessible but not always complete and accurate. That represents with the complexity of L2 meaning what DeKeyser (2005: 3–10) described: the aspect and the quantitative boundedness might be less accessible for many informants because of the abstractness, novelty and less salience, and corresponding, the less transparent form-meaning mapping.

In nominative contexts, the genitive was the dominant non-target-like choice and overwhelmingly the most common non-target-like choice in *da*-infinitive constructions. In the impersonal and imperative items, most target-like selections were accompanied by a formulaic association: impersonal-to-nominative or imperative-to-nominative. Relatively fewer informants integrated this association with other governing conditions of total-object marking. This variation in reasoning depth, from bare formula to integrated multi-condition explanation, is directly relevant to Schmidt's (2001) hierarchy of awareness: the formulaic associations represent knowledge at the level of noticing, while the integrated explanations indicate understanding. The verbal reports thus show that informants may produce the same target-like output by different routes, with implications for the stability and generalizability of the underlying knowledge.

A particularly notable feature of the impersonal subgroup was the consistent use of the term *bèi dòng* ‘passive’ by most informants to describe the Estonian impersonal construction. For some informants, the passive framing led them to treat the object as subject-like, which in turn motivated nominative. The inaccurate metalinguistic terminology for labelling this construction and this partial grammatical conceptualization reflect precisely the kind of partial explicit knowledge described by Ellis (2004: 237–239).

The *da*-infinitive subgroup produced the lowest target-like rate of all subgroups (41.7%), reflecting the complexity of this construction and specific difficulty of identifying the syntactic function of the *da*-infinitive construction and connecting it to nominative marking. Target-like choices in this subgroup were achieved through three routes: formulaic pattern recognition (e.g. *kellel tuleb* + NOM; *kellel on* + *noun* + NOM), a broader *da*-infinitive-to-nominative association, and explicit identification of the construction's syntactic function as clausal subject or nominal modifier in only a small number of instances. These formulaic expressions coexisted with more analytically flexible types of reasoning. The patterns are consistent with Ellis's (2015: 83–84) characterisation of L2 grammatical development as non-linear and uneven: accuracy rates and the depth of explicit knowledge differ noticeably across constructions and informants with different proficiency levels. Combined with reasoning patterns observed in the *da*-infinitive item S16 (*Ma tahan täna _____ läbi lugeda*) in genitive context, it indicates that identifying the syntactic function of the *da*-infinitive construction was less accessible knowledge for most informants.

The notable non-target-like genitive choices were mainly triggered by two related patterns: the overgeneralization of the genitive as a marker of aspectual boundedness to contexts where nominative is required by the construction type, and the direct perfective-particle-to-genitive association. The non-target-like partitive choices were relatively few and mainly associated with two types of reasoning: The first type involved overgeneralization of the partitive-verb-based reasoning, especially in S19 (*_____ arutati koosolekul läbi.*) and S24 (*Mul on unistus veel _____ ära õppida*), where *arutama* and *õppima* appeared to function as a partitive-verb cue for a small number of informants and the second type involved the misinterpretation of the quantitative boundedness, where the object was read as indefinite or non-specific. When the form-meaning mapping is less transparent, the more salient condition is more readily accessible without integrating other governing conditions; when the L2 meaning is abstract or novel, like the quantitative boundedness, it is harder to acquire (DeKeyser 2005: 3–10).

Furthermore, in nominative contexts, the tension between the perfective-particle-to-genitive association and the construction-to-nominative association was clearly observed in S19

(impersonal + *läbi*) and S22 (imperative + *ära*), where a small number of informants treated these two cues as competing cues. The patterns observed in non-target-like choices in nominative contexts reflect precisely the partiality and the limited integration of these learners' explicit knowledge.

The gradient of accessibility was observed through the verbal report: Negation was the most stably accessible condition. Aspectual boundedness was broadly accessible but not always applied accurately. Quantitative boundedness of object was less accessible and a small number of informants had partial explicit knowledge of it. The pattern that genitive marked the aspectual boundedness and the quantitative boundedness of object was overgeneralized to nominative contexts. Single salient cues, including impersonal and imperative constructions and perfective particles, were often accessible to these learners as formulaic associations with one specific case, but these associations could be overgeneralized across contexts. Partitive verb was broadly accessible but the overextension of the partitive-verb category to aspect verbs was also notable. The *da*-infinitive phrase's syntactic function remained the least accessible condition overall.

A consistent picture was therefore provided: the central difficulty for these L1 Chinese learners of Estonian object case marking was not the complete absence of relevant explicit knowledge, but rather the partial and uneven availability of that knowledge across different grammatical conditions, and the insufficient integration of it into a coherent and hierarchically organized system.

5. Conclusion

The study examined how L1 Chinese learners of Estonian use object case marking across sentences targeting partitive, genitive, and nominative contexts with different grammatical conditions and what kinds of explicit knowledge they drew on when making case choices. Data were collected from 18 L1 Chinese learners at B1 to C1 proficiency level through a 24-sentence written case-choice task combined with concurrent verbal reports.

In response to the first research question: the learners produced a high target-like rate in the written task, with a higher target-like rate in partitive and genitive contexts (86.8% and 89.6% respectively) than in nominative contexts (63.9%), with the lower rate in nominative contexts largely caused by the *da*-infinitive subgroup, which produced the lowest target-like rate of all subgroups (41.7%). Deviations from target-like usage were not randomly distributed, but related to specific grammatical conditions, with the verbal reports illuminated the reasoning underlying these patterns.

In response to the second research question: the verbal reports reveal a picture of uneven but largely explicit knowledge. Most informants verbalized grammatically relevant reasoning, indicating that the explicit knowledge required for object case marking was, to a significant degree, accessible for conscious articulation in this task. However, the depth, accuracy and completeness of this knowledge varied substantially across informants and grammatical conditions. Few responses were based solely on naturalness or intuition, which cannot be established from the verbal reports alone whether it is implicit knowledge or simply an absence of relevant knowledge.

Several consistent patterns emerged from the verbal report analysis.

First, a single salient condition was more readily accessible. Negation as a single, transparent and direct governing condition for the partitive case was verbalized by almost all informants. In affirmative clauses, aspectual boundedness, which together with the quantitative boundedness of the object governs the total-partial distinction, was broadly accessible but was not always accurately applied. The pattern that genitive was the marker of aspectual boundedness and quantitative boundedness of object was more salient for some informants and was overgeneralized to nominative contexts. Fewer informants verbalized both conditions simultaneously and only a small number verbalized the quantitative boundedness of the object, which was also applied inaccurately in some instances.

Second, salient surface cues had strong associations with one specific case: the perfective particles were directly associated with the genitive; and the impersonal, imperative

constructions were directly associated with the nominative, and the particle-to-genitive association competed with, and sometimes overrode the construction-to-nominative association when both cues co-occurred. These associations were overgeneralized across contexts where multiple governing conditions should be involved.

Third, learners' identification of a grammatical category did not always match the corresponding category in the target grammar. Regarding the verb class, aspect verbs were treated in many cases as lexically partitive verbs. Another notable example was the consistent use of the term *bèi dòng* 'passive' to describe the Estonian impersonal construction. This passive framing led some informants to treat the object as subject-like and to select nominative accordingly.

Fourth, the *da*-infinitive constructions revealed a distinct difficulty. The difficulty was less visible in the *da*-infinitive genitive subgroup, where the perfective particle functioned as a salient cue for genitive marking. However, it became more clear in the *da*-infinitive nominative contexts, where the non-target-like genitive was substantially overused and the target-like choice was made mainly through a memorized pattern.

Overall, the findings indicate that L1 Chinese learners' object-case choices reflected the accessible explicit knowledge and the central difficulty was in the partial and uneven availability of that knowledge across different grammatical conditions, and the insufficient integration of it into a coherent and hierarchically organized system.

For future research, the frequently observed misinterpretation of aspectual and quantitative boundedness and the passive-framing of impersonal constructions may require further investigation and comparative studies about how learners conceptualize these categories, particularly when the L1 encodes them through different means. Furthermore, the analysis did not reveal how the results of their writing task or the completeness and depth of their verbal explanations are associated with their language proficiency, which could also be a promising area for future research with a larger sample. The present study found some similar accuracy patterns observed in both this L1 Chinese learner group and advanced L2 Russian learner group. A direct comparative study, applying the same task design to both learner groups at matched proficiency levels, would have broader implications for Estonian object marking acquisition.

For pedagogical practice, the findings suggest that instruction on Estonian object case marking for L1 Chinese learners may benefit from explicit attention to two areas that proved particularly difficult. The first is the meaning of aspectual and quantitative-boundedness conditions and their integration in total-object contexts. Learners who consistently verbalized only one condition instead of integrating them together, or who restricted the aspectual

boundedness into the temporal-completeness and misread the quantitative boundedness of the object referents, could benefit from more targeted instruction and practice. The second is the relationship between nominative and genitive, which both belong to the total object contexts. Learners who regarded the perfective particles and the impersonal or imperative constructions as competing cues, might have interpreted them as two separate systems rather than an integrated whole.

Several limitations of the study should be noted in addition to those discussed in Chapter 3. The study did not include a native-speaker control group; target-like choices were determined on the basis of Estonian grammatical descriptions and consultation with two Estonian language specialists, but possible variation in native-speaker judgements was not empirically verified. The informants differed in proficiency level across a broad B1 to C1 range and in learning background and instructional experience, which may have affected how they verbalized the governing conditions. Some reasoning patterns identified in present study may reflect the specific pedagogical input in different teaching environment. A follow-up study focusing on what pedagogical input they received and how that affects their performance could answer this question. These limitations constrain the generalizability of the findings but do not affect the internal consistency of the patterns identified within this specific sample.

Despite these limitations, the study still fills a specific empirical gap in research on how L1 Chinese learners acquire the Estonian object marking system by combining a written case-choice task with verbal reports. The study not only showed how L1 Chinese learners choose the object cases but also what kinds of explicit knowledge they draw on: which conditions are accessible, which are partially available, and where the integration of multiple conditions into a coherent explicit system remains incomplete. These findings provide insights both for further research on L2 Estonian object marking acquisition and for the development of targeted instructional materials for Estonian learners, especially learners whose L1 lacks a direct equivalent system.

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Kokkuvõte

Eesti keele sihitise käändevaheldus on teise keele õppijatele üks raskemaid eesti keele grammatika valdkondi, millevarasemad uurimused on keskendunud peamiselt vene emakeelega õppijatele. Käesoleva magistritöö eesmärk on laiendada seda uurimisvaldkonda tüpoloogiliselt kaugemale õppijarühmale–hiina emakeelega õppijatele.

Magistritöö käsitleb seda, kuidas hiina emakeelega eesti keele õppijad valivad sihitise käännet erineva grammatilise struktuuriga lausetes ning millistele eksplitsiitsetele keeleteadmistele nad seejuures tuginevad. Andmed koguti 18-lt hiina emakeelega õppijalt eesti keele oskuse tasemega B1 kuni C1, kasutades 24-lauselist kirjalikku käändevalikuülesannet, mis hõlmas osastavas, omastavas ja nimetavas käändes sihitist eeldavaid kontekste, ning samaaegset verbaalset raporteerimist. Sihtkeelepäraste valikute osakaal oli kõrgem osastava (86,8%) ja omastava (89,6%) käände kui nimetava käände kontekstides (63,9%), kusjuures *da*-infinitiivi laiendina toimiva nimetava käände alamrühm andis kõikidest alamrühmadest madalaima tulemuse (41,7%).

Verbaalsed raportid näitasid, et enamiku informantide jaoks seostus eitus otseselt osastava käändega. Jaatavas finiiitlauses oli enim verbaliseeritud tingimuseks aspektuaalne tõlgendus, mida ei rakendatud alati stabiilselt ega täpselt. Silmatorkavad vihjed seostusid tugevalt ühe konkreetse käändega: perfektivsuspartiklid omastava käändega ning kindlad konstruktsioonid (verb imperatiivis või impersonaalis) nimetava käändega. Need seosed kanti üle erinevatesse kontekstidesse ning tõlgendati mõnel juhul konkureerivate teguritena. Partitiivverbide kategooriat laiendati ülemääraselt aspektverbidele. *da*-infinitiiviga konstruktsioonidesse kuuluva täis- ja osasihitise kasutustingimused olid õppijatele vähem tuttavad. Märkimisväärne oli ka see, et enamik informante kirjeldas eesti umbisikulist konstruktsiooni hiina termini *bèi dòng* ('passiiv') abil, mis mõnel juhul viis sihitise tõlgendamiseni subjektlaadse elemendina ja sellele vastavalt nimetava käände valikuni.

Uurimuses osalenud hiina emakeelega eesti keele õppijate peamine raskus sihitise käändevahelduse omandamisel ei seisnenud mitte üksnes asjakohaste eksplitsiitsete keeleteadmiste puudumises, vaid pigem nende teadmiste osalises ja ebaühtlases kättesaadavuses eri grammatiliste tingimuste lõikes ning nende ebapiisavas lõimimises sidusaks ja hierarhiliselt korraldatud süsteemiks.

Töö tulemused viitavad sellele, et hiina emakeelega õppijate jaoks võiks eesti keele sihitise käändevalduse õpetamisel pöörata enam tähelepanu aspektuaalse ja kvantitatiivse piiritletuse

tingimuste lõimimisele täissihitise kontekstis ning nimetava ja omastava käände omavahelisele seosele ühe ja sama täissihitise süsteemi osana.

Appendix 1. Written case-choice task

1. Mulle kingiti sünnipäevaks _____.
A. uus kleit
B. uue kleidi
C. uut kleiti
2. Ma ei vaadanud _____.
A. etendus
B. etenduse
C. etendust
3. Ta lõpetas _____ õigeks ajaks.
A. ülesanne
B. ülesande
C. ülesannet
4. Mari harjutab iga päev tund aega _____.
A. viiul
B. viiuli
C. viiulit
5. Too _____ kohe siia!
A. dokument
B. dokumendi
C. dokumenti
6. Ma kirjutasin _____ kaks tundi.
A. aruanne
B. aruande
C. aruannet
7. Parimale sportlasele antakse _____.
A. auhind
B. auhinna
C. auhinda
8. Teadlane avastas _____.
A. uus planeet
B. uue planeedi
C. uut planeeti

9. Hindan inimeste juures eelkõige ____.

- A. ausus
- B. aususe
- C. ausust

10. Meil tuleb ____ allkirjastada.

- A. leping
- B. lepingu
- C. lepingut

11. Ma jõin ____ terve õhtu.

- A. vesi
- B. vee
- C. vett

12. Üliõpilane esitab ____ homme.

- A. avaldus
- B. avalduse
- C. avaldust

13. Palun ava ____, siin on palav.

- A. aken
- B. akna
- C. akent

14. Ma uurisin ____ läbi.

- A. raport
- B. raporti
- C. raportit

15. ____ alustatakse tihti ilmast rääkimisega.

- A. vestlus
- B. vestluse
- C. vestlust

16. Mul on unistus veel ____ ära õppida.

- A. prantsuse keel
- B. prantsuse keele
- C. prantsuse keelt

17. Ta leidis kohe ____.

- A. vastus

B. vastuse

C. vastust

18. Mari istub praegu laua taga ja õmbleb ____.

A. kleit

B. kleidi

C. kleiti

19. Komisjon teeb ____ jaanuari lõpus.

A. lõplik otsus

B. lõpliku otsuse

C. lõplikku otsust

20. Ära esita ____!

A. avaldus

B. avalduse

C. avaldust

21. Ma tahan täna ____ läbi lugeda.

A. see raamat

B. selle raamatu

C. seda raamatut

22. Paranda ____ ära, muidu sajab sisse.

A. katus

B. katuse

C. katust

23. Ma kinkisin sõbrale sünnipäevaks ____.

A. kokaraamat

B. kokaraamatu

C. kokaraamatut

24. ____ arutati koosolekul läbi.

A. küsimus

B. küsimuse

C. küsimust

Appendix 2. Participant background questionnaire

This questionnaire collects background information about your language learning experience. The information will be used only for research purposes.

1. What is your native language (first language)?

☐ Chinese

☐ others

2. What other languages have you studied? Please also indicate the approximate level.

3. Before learning Estonian, how many and what foreign languages had you studied?

☐ None

☐ One _____

☐ Two _____

☐ Three or more _____

4. When did you start learning Estonian?

Year: _____

5. How long have you been learning Estonian?

☐ Less than 1 year

☐ 1–2 years

☐ 2–3 years

☐ More than 3 years

6. What is the highest level of official Estonian language certificate you have obtained?

☐ None

☐ A1

☐ A2

☐B1

☐B2

☐C1

7. What is the highest Estonian course level you are currently taking or have completed?

☐None

☐A1

☐A2

☐B1

☐B2

☐C1

8. Have you lived in Estonia?

☐Yes

☐No

9. If yes, please indicate the approximate length of residence:

☐Less than 6 months

☐6–12 months

☐More than 1 year

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Qiaoqiao Li

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