Petar Kehayov* and Virve Vihman

The lure of lability: A synchronic and diachronic investigation of the labile pattern in Estonian

Abstract: This paper examines the phenomenon of lability in Estonian. We describe the types of lability found in our database and the distribution of verbs according to formal (derivational) and semantic verb classes, and we propose an explanation for the spread of lability in the Estonian verbal lexicon. Estonian displays a wealth of labile verbs, compared with Finnish, for instance, a closely related language which uses similar (derivational and morphosyntactic) valency changing devices. We argue that Estonian lability has been co-conditioned by the following factors: a) intensive contact with German, a language rich in labile verbs, b) fluctuations in the productivity and regularity of the valency-decreasing derivation in the recent history of Estonian, c) the phonetic merger of different derivational suffixes leading to misinterpretation of the valency patterns of their derivatives, and d) form-driven analogy. In relation to the last factor we introduce the notion of “clustered lability,” which designates the expansion of the labile pattern over verbs sharing the same root.

Keywords: labile verbs, valency changing alternations, Estonian, verb derivation, language contact

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1 Opening remarks

The notion of lability concerns the phenomenon of a single verb participating in both transitive and intransitive argument structure without any change in its formal marking (Haspelmath 1993: 92; Dixon 1994: 18, 54, 217; Drossard 1998; Kulikov 2003; Galiamina 2006: 365–369; Letuchiy 2006, 2009), as shown in (1) with the English verb sink.

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(1) a. The explosion sank the boat. (transitive)
   b. The boat sank. (intransitive)

While languages like English and French have hundreds of such verbs (see, e.g., McMillion 2006; Heidinger, this issue), the extent of lability in Estonian is unexplored. Modern comprehensive grammatical descriptions of Estonian, such as EKG II, Erelt (2003), Erelt et al. (2007) or STUF (2009), do not even mention the existence of verbs with both semantically transitive (bivalent) and intransitive (monovalent) uses, although examples such as (2) show that labile verbs are indeed attested in Estonian.

(2) a. Kapten tüüri-b laeva sadamasse.
    captain.nom steer-prs.3sg ship:part harbour:ill
    ‘The captain steers the ship into the harbor.’

b. Laev tüüri-b sadamasse.
    ship.nom steer-prs.3sg harbour:ill
    ‘The ship is steering/heading into the harbor.’

To our knowledge, the only modern grammar which briefly mentions this possibility is Tauli (1973: 155). The possibility of unmarked valency change is mentioned also in some specialized studies on valency-changing derivation (e.g., Aavik 1920: 7, 30; Kasik 2001: 83–84) or argument structure (Erelt and Metslang 2006: 263, 2008: 15). However, none of these studies discusses the amount of such verbs in Estonian – the lists provided do not exceed 5–6 verbs – or their distribution in the verbal lexicon. The only clue as to the formal and semantic properties of these verbs comes from Kasik (2001: 83–84), who claims that the few verbs with both transitive and intransitive uses are derived, and that they designate emotions. The database we compiled for this study, however, comprises a total of 93 labile verbs, demonstrating that lability is not as marginal in Estonian as it may have previously seemed.

The major goals of our study are a) to provide a general descriptive account of lability in the Estonian verbal system: its formal, semantic and distributional characteristics, and b) to identify the factors responsible for the rise and spread of lability in Estonian. In particular, we will show that Estonian is relatively rich in labile verbs, and that the majority of them denote basic and frequent activities or states, such as ‘support/lean’, ‘rush (tr./intr.)’, ‘stop (tr./intr.)’. We can, even now, dismiss the claim that Estonian labile verbs are all derived and designate emotions, as the verb exemplified in (2) is neither derived nor an emotion verb. We note, however, that most of the Estonian labile verbs are indeed derived, and we use this as a starting point in investigating the circumstances which led to the
development of lability in Estonian. This paper considers only Standard Estonian, which is based on North Estonian dialects; we make no claims about South Estonian, nor other dialects (for overview of dialects, see Erelt 2003). Further research based on dialects may shed more light on the development of lability in Estonian (for further comments on this, see Section 4.2).

The paper begins by outlining the domain of lability in order to establish the boundaries of our investigation. Within these boundaries, in Section 3.1 we examine the structural characteristics of Estonian which are directly or indirectly relevant to the distribution of the labile pattern, and in Section 3.2 we describe our collection of labile verbs. The primary focus of Section 3.3 is a discussion of the Estonian labile verbs according to the types of lability which have been identified in previous research. We discuss the criteria used for drawing boundaries between labile and non-labile verbs, on the one hand, and between different types of lability, on the other. Then, in Section 3.4, we discuss the distribution of Estonian labile verbs according to formal and semantic criteria. At the end of this section we briefly discuss the relationship between Estonian lability and transcategorial operations such as nominalization. In Section 4, the discussion turns to the diachronic sources of lability in Estonian. We argue that Estonian is unique compared with other languages studied in this special issue with regard to the role played by language contact(s) in the development of lability. Section 5 presents the major conclusions of the study.

2 Demarcating the domain

Kulikov and Lavidas (this issue) define lability as a term referring to verbs or verbal forms which show valency alternation without a formal change in the verb. In the narrowest possible sense, lability refers to verb forms which can be employed both transitively and intransitively. In the broader sense, lability also refers to other formally unmarked alternations in diathesis (cf. Letuchiy 2006: 12–20). In this study we apply the narrow sense of lability, and, following Letuchiy (2006: 22), we implement the following conditions which must be met in order for a verb to be considered labile:

i. The verb is employed both transitively and intransitively.

ii. Either the properties of the subject or other semantic properties of the situation differ considerably between the transitive and intransitive use. This condition excludes cases of object insertion (e.g., *John ran* / *John ran two kilometers*), where the transitive and intransitive uses of the verb do not differ in either subject properties or situational properties.
iii. The relationship between alternative diatheses is not identical to the relationship between full diathesis and diathesis with omitted referent, either definite or generalized. This condition excludes cases of object omission (e.g., *John drinks beer / John drinks*). The seemingly intransitive use of the verb *drink* differs substantially from the intransitive use of the verb *walk* in the pair *John walked the dog* vs. *John walked*: the activity of drinking contains an implicit object even when used intransitively, while the activity of walking does not imply any object.

iv. The alternative uses of the verb cannot be considered to be two separate homonymous lexemes, because the situations they denote are too similar. This condition excludes alternants with non-contiguous meanings. In Example (3) from Estonian, the semantic difference between the alternants involves metaphorical transfer.

(3) a. *Vares noki-b teri.*
crow.nom pick-prs.3sg grain:pl.part
‘The crow is picking grains.’

b. *Lapsel nupp noki-b.*
child:ade button.nom pick-prs.3sg
‘The child has her wits about her.’

The verb form *nokib* in Examples (3a) and (3b) above should be treated as a 3sg form of two lexical units, rather than as different syntactic uses of a single lexical unit. In other words, (3) exemplifies homonymy rather than polysemy, and therefore cannot be considered as an instance of lability.

Other diathesis alternations, such as dative shift (*John handed the Bible to Mary. / John handed Mary the Bible.*) and locative alternation (*John sprayed paint on the wall. / John sprayed the wall with paint.*), violate most of the conditions presented above and therefore are considered to be outside the domain of lability.

Several types of lability have been distinguished, based on the thematic role shared in transitive and intransitive uses of the verb. Patient-preserving lability (P-lability) pertains in cases like Example (4), where the transitive and intransitive use of the verb have a patient argument in common (Dixon 1994: 54, 140, 217–218; Kulikov 2003: 95; Galiamina 2006: 365–368; Letuchiy 2006: 13–14; Kulikov and Lavidas, this issue).

(4) a. *John broke the vase.*

b. *The vase broke.*

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1 These also violate the first condition.

(5) a. John walks the dog.
b. John walks.

This type of lability is often difficult to distinguish from uses of verbs with omitted (implicit) objects (as in the case of John drinks beer. / John drinks.). Letuchiy (2006: 29–39) identifies several criteria, including the semantic and pragmatic properties of the participants, for distinguishing between A-lability and object omission. Probably the most important of these is the direction of valency “derivation”. In pairs like (5) the primary use of the verb is the intransitive one, from which the semantically more complex ‘making something walk’ is derived. In the object omission case, on the other hand, the primary use is the transitive one, as determined by the semantic valency of the verb.

Other types of lability include reflexive, Example (6), and reciprocal (7) lability (Letuchiy 2006: 141, 167; Letuchiy 2009; Kulikov and Lavidas, this issue).

(6) a. John shaved Peter.
b. John shaved.

(7) a. John kissed Mary.
b. John and Mary kissed.

Reflexive lability appertains to unmarked valency alternation where the intransitive use of the verb is a reflexive counterpart of the transitive. In the case of reciprocal lability the intransitive use of the verb is a reciprocal counterpart of the transitive, where “reciprocal” presupposes bilateral and symmetrical action between participants.

3 Lability in Estonian

3.1 Background

Estonian is a member of the Uralic language family and belongs to the Finnic subgroup of languages. In many respects, however, the genetic affiliation of Estonian is overridden by areal contacts with certain Indo-European languages (see
Metslang 2009 for an overview). In particular, Estonian has had extensive contacts with German, Swedish, Latvian and Russian, which have resulted in its becoming morphosyntactically more fusional than most of the other Uralic languages. Consequences of this can be seen in the higher degree of grammatical syncretism characterizing Estonian morphology, in contrast with the closely related Finnish (Grünthal 2001, 2007).

Estonian is characterized by nominative-accusative alignment, and a relatively well elaborated apparatus for valency changing alternations, including the following dedicated markers:

1. Increase in valency:
   a) causative derivational suffix; e.g., kasvama ‘grow (intr.)’ → kasva-ta-ma ‘raise, grow, cultivate’

2. Decrease in valency:
   a) impersonal and personal passive constructions (morphosyntactic voice) (see Torn-Leesik 2009; Torn-Leesik and Vihman 2010 for examples)
   b) anticausative derivational suffixes; e.g., solvama ‘insult’ → solv-u-ma ‘take offense’

An example of the aforementioned grammatical syncretism in Estonian is the derivational suffix -ta-, listed above under (1a), which is in fact polysemous in contemporary Estonian between causative, factitive and momentaneous meanings. As we will show in Section 4, this polysemy has played an important role in the rise of lability in Estonian, and it constitutes an important difference between Estonian and closely related Finnish.

Finnish generally uses the same valency-increasing and valency-decreasing devices as Estonian, the primary difference being that Finnish causative and anticausative suffixes are more productive than in Estonian, and their derivation patterns tend to be more regular (Kasik 1991, 2001; cf. also ISK: 309–347 and EKG I: 429–433). For instance, the equivalent of the Estonian valency-increasing suffix -ta in Finnish is -(t)ta/-(t)tä. The higher productivity of the Finnish suffix as compared to its Estonian equivalent is manifested by the subgroup of causative verbs

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2 The term anticausative is applied here in the sense of Nedjalkov (1969) and Haspelmath (1993) to cover cases where an intransitive verb is derived from a transitive one. Semantically, the derived verbs can be canonical anticausatives (i.e., verbs expressing spontaneous activities without a causer, e.g., The vase broke), autocausatives (i.e., verbs used with an animate, non-agentive argument; e.g., They gathered.) or reflexives (e.g., John dressed up.)

3 We take productivity to refer to the number of verbs derived with a particular derivational affix; by regularity, we mean the extent to which the derivational rule is systematic and transparent. Hence, productivity and regularity are not synonymous, although they tend to be correlated with each other: a productive derivation typically follows a regular derivational pattern.
involving situations where a human causer is ordering a service to be delivered for her by a human causee; cf. rakentaa ‘build’ > rakennu-tta-a ‘have something built by someone’, pestä ‘wash’ > pese-ttä-ä ‘have something washed by someone’. Whereas such causatives are productively derived by the suffix -(t)ta/-(t)tä (and manifest a regular derivational pattern) in Finnish, the Estonian causative suffix does not derive this type of causative, but uses instead analytic causatives formed with the verb laskma ‘let’; cf. ehitada ‘build’ > laskma ehitada ‘have someone build something’, pesta ‘wash’ > laskma pesta ‘have someone wash something’ (Kasik 2001: 92). In Section 4.3 we will address some other areas where Finnish valency-increasing and valency-decreasing derivation shows higher productivity and regularity than the Estonian valency derivation.

The greater productivity and regularity of the Finnish (anti)causative derivation seems to be negatively correlated with the range of lability in this language. The largest grammar of Finnish (ISK) and comprehensive studies in Finnish syntax (e.g., Pajunen 2001) do not discuss the number of labile verbs in Finnish, but according to Anneli Pajunen and Maria Vilkuna (p.c.) the number of such verbs in Finnish is probably no higher than ten. In Section (4.3) we return to this observation in relation to the question of why Estonian is more conducive to lability than Finnish.

Importantly, both object- and subject-ellipsis are more frequent in Estonian than in Germanic, for instance, due in part to overt subject agreement on the finite verb and the case-marking of core arguments (Duvallon and Chalvin 2004; Pajusalu and Pajusalu 2005; Metslang 2009: 57; Lindström 2010; Blokland and Kehayov 2010: 46–47). See Examples (8), exemplifying subject omission, (9), object omission and (10) with both subject and object omission. Pronouns would not make these examples ungrammatical, but they are optional.

(8) Ø Läh-e-n kooli.
   (1SG) go.prs-1sg school.ILL
   ‘I’m going to school.’
   (Lindström 2010: 91)

4 We note that Penttilä mentions in his Finnish grammar (1963: 540) 32 verbs which can be used both transitively and intransitively. However, his criteria for giving a verb this ambivalent status are looser than our criteria for lability. For example, some of the verbs in his list have an implicit generic object in their intransitive application (e.g., iskeä ‘hit’; see our criteria for A-lability above and the discussion in Section 3.3.2); other verbs are used intransitively only in very specific contexts, in which the meaning is non-contiguous with the verb’s transitive meaning (e.g., ampua ‘shoot, tr. / peck on spoon bait, intr.’). Such verbs are clearly not labile in the sense of lability adopted in the present study.
The issue of distinguishing between A-lability and object ellipsis as in (9) and (10) will be addressed in Section 3.3.2.

3.2 The data

Our database of Estonian labile verbs is not balanced by any means, or gathered from a population with a precisely measurable size. It is not possible to automatically search the available text corpora of Estonian for labile verbs, as in the case of lability we are exclusively concerned with an alternation of function, not an alternation of form. As we are specifically interested in valency change with an absence of marking, there is nothing on which to base a possible concordancing procedure. Parsed corpora do not help either, because they do not contain information about zeros: imagine we should find \( x \) many verbs used both with and without a direct object. Bearing in mind the discussion in the last section, there is a good chance that these verbs are not labile, but simply occur in a context with an omitted referent.

In the absence of a method for systematically culling labile verbs, we gathered our dataset of Estonian labile verbs by simply collecting text examples where a verb is used with two different valency patterns. This process, which has taken place over years and still continues, had reached 93 verbs by October 2011. In order to make our search more systematic and thorough, we examined all the verb entries in the Dictionary of Correct Usage of Estonian (ÕS), which contains a total of 50,512 keywords, and Rätsep’s collection of Estonian clause patterns (Rätsep 1978). In cases where these sources suggest that a certain verb is labile,
but do not provide enough examples, we first consulted EKSS, the largest dictionary of Estonian, and then native speakers.

It should be stressed that our database indicates the minimum number of labile verbs to be found in Estonian, rather than a definitive number. The more labile verbs our corpus contains, the more representative a picture can be drawn from our sample, in terms of the distribution of lability in the language in general. We believe that a sample of 93 items sharing such a narrowly defined feature as lability ought to suffice to draw generalizations about the distributional characteristics of this feature in Estonian. Like many other contributions in this issue, we exemplify lability in Estonian by using pairs of constructed examples, although we illustrate diachronic claims (in Section 4) with attested examples from corpora. We consider a minimal pair of sentences to be sufficient to illustrate the lability of a verb, as lability is a property of clause-internal syntax/semantics that can be identified without a larger context.

3.3 Types of lability

3.3.1 Patient-preserving lability

It has been claimed that P-lability is typical for ergative-absolutive languages, whereas A-lability is typical for nominative-accusative languages (Dixon 1994: 54, 217–218). This is conditioned by the alignment pattern: the ergative-absolutive languages mark objects of transitives like subjects of intransitives, whereas nominative-accusative languages mark subjects of transitives and intransitives in the same way. Despite this, P-lability is found in many nominative-accusative languages, such as English, German, French and Greek (Kulikov and Lavidas, this issue). Estonian follows suit, as our corpus contains 54 P-labile verbs (see Examples 11–13). The patient participant in the transitive construction (the examples under “a”) is marked with an object case (usually partitive or genitive) while in the intransitive construction (the “b” examples), the patient occurs as a subject and takes the zero-marked nominative case.

   Jüri.NOM startle-PST.3SG Mari-PART
   ‘Jüri startled Mari.’

   b. Mari ehmata-s.
   Mari.NOM startle-PST.3SG
   ‘Mari startled / had a fright.’
One might think that P-labile verbs are easily detected in Estonian, due to the formally encoded shift between the second argument of the transitive construction and the single argument of the intransitive construction. However, the boundary between P-lability and A-lability is fuzzy, as the single argument of the intransitive construction may show differing degrees of agentivity (Hopper and Thompson 1980: 287; Comrie 1981: 53–56; DeLancey 1984), not always corresponding straightforwardly to either the transitive agent or patient. For example, the human participant in (11b) is more agentive (in terms of animacy and definiteness) than the inanimate participants in (12b) and (13b); in fact, experiencer arguments of emotive verbs, such as the one in (11b), have been analyzed in Estonian linguistics as being neutral between agent and patient (Kasik 1991: 468), despite the lack of control and volitionality of their referent over the activity in question. The example in (11a) shows, however, that they map to the patient, or undergoer, of the transitive event (11a) rather than the agent, and so we treat them as patients. Accordingly such emotion verbs are classified in our corpus as P-labile.

### 3.3.2 Agent-preserving lability

As defined in Section 2, A-lability appertains to cases where both uses of the verb, the transitive and the intransitive, are agentive. Our Estonian corpus comprises 19 A-labile verbs, as in Examples (14)–(16).

(14) a. Jüri jaluta-s koera.
Jüri.NOM walk-PST.3SG dog.PART
‘Jüri walked the dog.’
b. Jüri jaluta-s.
    Jüri.NOM walk-PST.3SG
‘Jüri walked.’

    Jüri.NOM move-PRS.3SG piano-PART other.ILL apartment-ILL
‘Jüri is moving the piano to another apartment.’
    Jüri.NOM move-PRS.3SG other.ILL apartment-ILL
‘Jüri is moving to another apartment.’

(16) a. Poisid keeruta-sid köit.
    boy:PL.NOM twist-PST:3PL rope:PART
‘The boys twisted the rope.’
b. Poisid keeruta-sid tüdruku ümber.
    boy:PL.NOM twist-PST:3PL girl:GEN around
‘The boys were buzzing (lit: twisting) around the girl.’

As already noted, the boundary between the classes of A-labile and P-labile verbs is fuzzy. Although verbs with “neutral” arguments in their intransitive application are treated uniformly here as P-labile, agentivity is a non-discrete notion and it is a matter of agreement where to draw the boundary with P-lability.

Another fuzzy area is found between A-lability and reflexive lability. As most of the A-labile verbs take prototypically agentive subjects, which are capable of reflexive activities, the question arises of how to tell A-lability apart from reflexive lability. The condition we have applied here is that a verb is A-labile if a reflexive pronoun significantly changes the meaning of the situation described. Thus, the verb pingutama ‘stretch, strain’ in (17) is considered A-labile, despite the possibility of taking a reflexive pronoun object, because the situation described in (17b) is different from the situation in (17a). On the other hand, keerama ‘turn’ in (18) is reflexively labile because the insertion of a reflexive pronoun does not bring such a change in meaning.

(17) a. Jüri pinguta-b pesunööri.
    Jüri.NOM stretch-PRS.3SG clothesline:PART
‘Jüri stretches the clothesline.’
b. Jüri pinguta-b (ennast).
    Jüri.NOM strain-PRS.3SG himself:PART
‘Jüri makes an effort (lit. Jüri stretches himself.)’
The third domain where A-lability overlaps with other syntactic phenomena concerns covert arguments. The distinction between A-lability and object omission is not clear-cut, although this distinction is important for languages like Estonian, which allow more extensive object omission than English, for instance. We assume that in the case of object omission, the object (patient) is more easily recoverable from the context than in the case of A-lability. With this criterion in mind, examples like (19) should be accounted for by object omission, rather than A-lability. In (19) the covert, recoverable object is likely to be something like ihu ‘body’ or põske ‘cheek’.

(19) Külm näpista-b.
    cold.nom pinch-prs.3sg
    ‘Cold bites.’

In such cases, transitivization or detransitivization does not bring any significant change to the situation, and this characteristic violates our definition of lability as presented in Section 2. We consider a verb to be A-labile only if its intransitive use does not involve an implicit object which is referentially distinct from the subject.

The criterion concerning the direction of valency derivation, as identified by Letuchiy (2006: 29–39), is only partly applicable for telling A-labile verbs apart from verbs with implicit objects. Judging from the semantics of the verbs, it could be stipulated that for most of the verbs classified as A-labile in our corpus, the intransitive use is indeed primary and the transitive is secondary. With some verbs, however, it is impossible to say which use is primary, e.g., Example (20).

(20) a. Autod tolmuta-vad teeäärset loodust.
    car:pl.nom dust:prs.3pl roadside:part nature:part
    ‘Cars cover the roadside vegetation with dust.’

b. Auto tolmuta-s küla vahel.
    car.nom dust:prs.3sg village.gen between
    ‘The car raised dust around the village.’

It is not clear which of the meanings of the verb tolmutama is primary: the transitive ‘cover smth. with dust’ or the intransitive ‘raise dust’.
Altogether, we adopt a rather restrictive view of A-lability, which may partially explain the low number of such verbs in our corpus.

3.3.3 Reflexive lability

Reflexive lability concerns cases where the intransitive alternant of the verb could be regarded as a reflexive derivative of the transitive. The highly agentive actor coincides with the patient, and so these intransitive verbs tend to be unmarked anticausatives, contrasting with derived anticausatives (marked with derivational verbal morphology; Kasik 1991; Pihlak 1992; Vihman 2002). Our corpus contains 12 reflexively labile verbs, most of which are verbs of movement, as in (21)–(22):

(21) a. Jüri pööra-s lehte.
    Jüri.NOM turn-PST.3SG leaf.PART
    ‘Jüri turned the page.’

b. Jüri pööra-s vasaku-le.
    Jüri.NOM turn-PST.3SG left-ALL
    ‘Jüri turned left.’

(22) a. Jüri siruta-s käsi.
    Jüri.NOM stretch-PST.3SG hand.PL.PART
    ‘Jüri stretched his hands.’

b. Jüri siruta-s ja tōusi-s.
    Jüri.NOM stretch-PST.3SG and stand_up-PST.3SG
    ‘Jüri stretched and stood up.’

3.3.4 Reciprocal lability

The reciprocal pattern involves cases where the intransitive alternant denotes both ‘A does V to B’ and ‘B does V to A’. Our corpus has eight such verbs, most of them denoting activities related to interpersonal affection; see (23).

(23) a. Jüri kallista-s Mari-t.
    Jüri.NOM embrace-PST.3SG Mari-PART
    ‘Jüri embraced Mari.’

b. Jüri ja Mari kallista-sid.
    Jüri.NOM and Mari.NOM embrace-PST.3PL
    ‘Jüri and Mari embraced.’
3.4 Distribution of labile verbs

As can be calculated by adding the amounts mentioned in the previous sections, our database comprises a total of 93 labile verbs. Table 1 summarizes these findings, showing the proportion in our corpus of each lability type, in terms of both raw numbers and percentages.

It should be stressed again that the numbers in the table are not definitive. This concerns not only absolute numbers, but also percentages: as discussed earlier, A-lability can be confounded with phenomena that are external to lability, and therefore the most conservative estimate of lability would exclude A-lability entirely. In his crosslinguistic study of lability, Letuchiy guards against putting the whole notion in jeopardy by excluding A-lability from the scope of his research (see Letuchiy 2006: 36). See also Creissels (this issue) for similar problems in distinguishing P-lability from agent omission in languages with ergative alignment. In such languages the notion of P-lability is blurred in the same way as A-lability is for accusative languages.

In the following sections, we break down the group of labile verbs according to formal and semantic characteristics.

<table>
<thead>
<tr>
<th>Type of Lability</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-labile</td>
<td>54</td>
<td>58%</td>
</tr>
<tr>
<td>A-labile</td>
<td>19</td>
<td>20%</td>
</tr>
<tr>
<td>Reflexively labile</td>
<td>12</td>
<td>13%</td>
</tr>
<tr>
<td>Reciprocally labile</td>
<td>8</td>
<td>9%</td>
</tr>
</tbody>
</table>
3.4.1 Formal classes of labile verbs

The Estonian evidence confirms the crosslinguistic generalization that derived verbs are more often labile than non-derived verbs (Letuchiy 2006: 256). Out of our set of 93 labile verbs, 52 (56%) are derived verbs. Table 2 shows the number of labile verbs marked with derivational morphology, according to type of lability, and their share of all labile verbs of each type.

In order to explain these proportions, we need to take into account the types of derivational morphology involved. The vast majority of labile verbs marked with derivational morphology, and about half of all the labile verbs in our corpus, are historically causative (deverbal) or factitive (denominal or de-adjectival) coinages of the derivational suffix -ta; see Examples (24) and (25). Factitives can also be regarded as causatives, as their transitive use normally involves a causation of change-of-state, and their derivational base denotes the result of this change (Kasik 2009: 68). Whereas the class of (deverbal) causatives comprises verbs which cause participant Y to do V (see 24a), the class of (denominal or de-adjectival) factitives comprise verbs causing participant Y to be S; see (25a). Both classes involve causation, and therefore can be subsumed under the broad class of causatives.6

(24) a. Jüri liiguta-s ratastooli-s vanaisa.
   Jüri.NOM move-PST.3SG wheel_chair-INE grandfather.PART
   ‘Jüri moved grandpa (who was) in the wheelchair.’

b. Vanaisa liiguta-s.
   grandfather.NOM move-PST.3SG
   ‘Grandpa moved.’

Table 2: Derived verbs according to type of lability

<table>
<thead>
<tr>
<th>Type of lability</th>
<th>N</th>
<th>% of verbs in corpus</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-labile</td>
<td>26</td>
<td>48.1%</td>
</tr>
<tr>
<td>A-labile</td>
<td>16</td>
<td>84.2%</td>
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<tr>
<td>Reflexively labile</td>
<td>5</td>
<td>41.7%</td>
</tr>
<tr>
<td>Reciprocally labile</td>
<td>5</td>
<td>62.5%</td>
</tr>
<tr>
<td>Σ</td>
<td>52</td>
<td>55.9%</td>
</tr>
</tbody>
</table>

6 This view of the relationship between causatives and factitives is adopted in the newest Finnish grammar (ISK: 314–315).
a. Jüri lolita-b lapsi.
   Jüri.NOM fool-PRS.3SG child:PL.PART
   ‘Jüri fools the children.’

b. Jüri lolita-b.
   Jüri.NOM fool-PRS.3SG
   ‘Jüri fools around (or behaves like a fool).’

The same suffix also derives punctual (momentaneous) verbs. Such derivatives usually have unique or sound-symbolic stems; see the P-labile verb in (26), derived from the sound-symbolic root prants.

a. Mees prantsata-s puu-d pliidi ette.
   man.NOM crash-PST.3SG wood-NOM.PL stove.GEN before
   ‘The man slammed the wood down in front of the stove.’

b. Puud prantsata-sid põranda-le.
   wood.PL.NOM crash-PST:3PL floor-ALL
   ‘The wood crashed on the floor.’

Hence, this suffix is synchronically polysemous, as it derives three types of verbs (Kasik 2009: 54):
1. denominal/de-adjectival causatives (factitives);
2. deverbal causatives;
3. punctual (momentaneous) verbs.

Diachronically, the suffix -ta stems from at least two distinct suffixes, the first deriving causatives, the second deriving momentaneous verbs. The polysemy of the suffix in modern Estonian is thus the result of a phonetic merger (i.e., homophony) of (at least) two suffixes, which are still formally distinguished in Finnish (Hakulinen 2000 [1979]: 257, 265). The exponent of the causative suffix in Finnish is -(t)ta/-tä (e.g., syödä ‘eat’ > syö-ttä-ä ‘feed’), whereas the exponent of the momentaneous suffix is -ahta/-ähtä (katsoa ‘watch’ > kats-ahta-a ‘glance’).

The suffix -ta also participates in the formation of several complex suffixes. Our dataset contains examples of verbs derived with the complex suffixes -sta, -nda and -tle, which derive mainly from nouns or adjectives and have causative (factitive) functions, and the complex suffix -rda, which derives durative verbs.

Clearly, the Estonian derivational system cannot be characterized by isomorphism between form and meaning: the system includes both one-to-many and
The lure of lability

many-to-one form-meaning pairings for suffixes. Several polysemous suffixes exist in the language that may express the same meanings; for example, the suffixes -ta and -sta are both polysemous, although their functions overlap in the domain of factitive derivation (Kasik 2009: 68). For this reason, classifying labile verbs according to their derivational suffix would be futile. A bare affix without the meaning it assumes in the context of the derived verb is irrelevant for the semantic notion of lability. A more fruitful approach would classify derivatives according to the difference in meaning compared with their derivational base. Accordingly, we distinguish between the causative, factitive and other classes of derivatives.

The first two classes are discussed above. “Other” comprises derivatives that do not belong to the first two classes; many of them convey aspectual information such as punctuality and duration, or an instrumental meaning (the base denotes a tool and the derivative, its application, as in Example (14b), jalutama ‘walk’, which derives from the word jalg, ‘foot’). Table 3 presents the distribution of these classes by labile verb type.

The table shows that the derived factitives are the most prominent class of labile verbs, constituting one quarter of the dataset. If we combine the causative and factitive classes in a broader causative class, the result is an even larger formal class – that of deverbal, denominal and de-adjectival causatives. The proportion of all derived labile verbs in the data covered by this class is 78.8%, and the proportion out of all the labile verbs (both derived and non-derived) is 44.1%. This means that nearly half of the verbs in our database are derived causatives containing the causative/factitive suffix -ta or the complex suffixes -sta, -nda or -tle, which contain -ta.

We will refrain from discussion of correlations between derivational class and type of lability, as most of the numbers in Table 3 are too low for drawing
wide-ranging generalizations. What’s more, as has been noted, the boundaries between some lability types are not discrete, which decreases the reliability of the numbers. We note, however, an apparent correlation between A-lability and causative derivation. Out of 19 A-labile verbs, 14 are derived causatives/factitives, which means that 74% of all A-labile verbs include causative semantics. This percentage conforms to the typological tendency observed by Letuchiy (2006: 31) for A-labile verbs to emerge from an original transitive function, with the intransitive function being secondary. In Estonian, this is related to the observation that the majority of A-labile verbs are derived causatives. This is not the case for P-lability, as the share of P-labile verbs containing transitivizing derivational marking is much lower.

We now turn to the salience of the different types of bases to which the derivational affix is added, summarized in Table 4. Although there are a few cases where it is not completely clear whether the verb is derived from a verb or a noun/adjective, this does not affect the general picture.

Based on the evidence discussed in this section, we can now draw the following picture of derivational types within the group of labile verbs (drawing on our data):

1. More than half of labile verbs in Estonian bear derivational morphology.
2. 44% of the labile verbs are originally deverbal, denominal or de-adjectival causatives (cf. Table 3, which shows a total of 41 causatives and factitives).
3. More than one third of the labile verbs are derived from nouns or adjectives.

### 3.4.2 Semantic classes rich in labile verbs

Labile verbs in Estonian have very divergent meanings, but two semantic classes which are particularly well represented are verbs of (a) emotion and (b) sound symbolism and manner imitation. The largest unified semantic class in our database of Estonian is the class of verbs of emotion, which, interestingly enough, is not matched by the crosslinguistic data. Letuchiy (2006), the only crosslinguistic

<table>
<thead>
<tr>
<th>N derived labile verbs</th>
<th>% of all derived labile verbs</th>
<th>% of all labile verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun/adjective</td>
<td>33</td>
<td>63.4%</td>
</tr>
<tr>
<td>Verb</td>
<td>12</td>
<td>23.1%</td>
</tr>
<tr>
<td>Unique or sound-symbolic stem</td>
<td>7</td>
<td>13.5%</td>
</tr>
</tbody>
</table>
study of lability, devotes an extended discussion to the semantic verb classes in which lability frequently occurs (pp. 178–214): the class of emotion verbs is not among them. Example (11) in Section 3.3.1, above, shows the labile emotion verb *ehmatama* ‘startle’. Our corpus contains eight such verbs, including the positive emotion verb in Example (27) and the negative emotion verb in (28).

(27) a. Jüri rõõmusta-s Mari-t.
    Jüri.NOM delight-PST.3SG Mari-PART
    ‘Jüri delighted Mari.’
    b. Mari rõõmusta-s.
    Mari.NOM rejoice-PST.3SG
    ‘Mari rejoiced.’

(28) a. Jüri vihasta-s Mari-t.
    Jüri.NOM anger-PST.3SG Mari-PART
    ‘Jüri angered Mari.’
    b. Mari vihasta-s.
    Mari.NOM anger-PST.3SG
    ‘Mari became angry.’

As noted in Section 3.3.1, the subject referent of an intransitive sentence with an emotion verb is an experiencer, and hence falls in between agent and patient on the semantic role hierarchy. The semantic class of labile emotion verbs, interestingly, is also formally consistent: all of them are derived with the suffix -ta (or -sta, which also contains -ta); cf. *ehmatama* ‘startled/be startled’, *rõõmustama* ‘delight/rejoice’, *vihastama* ‘anger/get angry’, *jahmatama* ‘astound/be astounded’, *kohmetama* ‘embarrass/become embarrassed’, *pahandama* ‘annoy/get angry’, *kurvastama* ‘sadden/be sad’, *imestama* ‘amaze/wonder’.

The other salient semantic class among the labile verbs in our dataset is that of sound symbolic and manner imitation verbs; the earlier example in (26) exemplifies a sound symbolic verb, while (29) exemplifies the lability of a manner imitation verb.

(29) a. Mari krussi-s juukse-id.
    Mari.NOM curl-PST.3SG hair-PL:PART
    ‘Mari curled her hair (with her hands).’
    b. Juukse-d krussi-sid Mari kukla-s.
    hair-PL.NOM curl-PST:3PL Mari.GEN nape_of_the_neck-INE
    ‘Mari’s hair curled up on the nape of her neck.’

Our data includes 15 labile verbs which belong to this class, but more such verbs are likely to be found. Unlike the emotion verbs, this class is more open to new
members, first due to the open and diffusive nature of the sound symbolic lexicon in general, and second due to the high productivity of sound symbolic word-formation in Estonian (cf. Veldi 1987: 193).

Interestingly, the crosslinguistically prominent class of phasal verbs (see Letuchiy 2005, 2006: 47) – does not exhibit much lability in Estonian. The only labile phasal verbs which take nominal objects are peatama ‘stop (tr./intr.)’, as in (30), and its near-synonym seisatama ‘stop (tr./intr.)’.

(30) a. Jüri peata-s bussi.
   Jüri.NOM stop-PST.3SG bus.PART
   ‘Jüri stopped the bus.’

   b. Buss peata-s.
   bus.NOM stop-PST.3SG
   ‘The bus stopped.’

The phasal verb hakkama ‘begin’ is not considered to be labile, as it is used transitively only with infinitival complements, which are analyzed as forming part of the complex predicate, not as objects (EKG II: 258); note the unacceptability of a verbal noun as object in (31a).

(31) a. Jüri hakk-a s õppima / *õppimist.
   Jüri.NOM begin-PST.3SG study:INF studying:PART(=ACTION NOMINAL)
   ‘Jüri began to study.’

   b. Õppetund hakk-a s.
   lesson.NOM begin-PST.3SG
   ‘The lesson began.’

3.4.3 Paradigmatic distribution: nominal lability and partial lability

The labile patterning of finite verbal forms in Estonian usually extends to nominalizations and adjectivizations, such as action nominals and participles. This is expected, as lability concerns the valency of the verb, part of the core meaning associated with the verb in lexicalist theories (e.g., Bresnan 2001; Grimshaw 1990; Van Valin and LaPolla 1997), and highly relevant for the meaning of the verbal stem. Consider Bybee’s hierarchy showing the extent to which a certain category affects the meaning of the verb stem (Bybee 1985: 13–24).
Here valency is shown as the innermost category, thus affecting or modifying the stem to a higher degree than any other category. This hierarchy informs the relative probability for verbal categories to be lost upon nominalization: the valency pattern is less likely to be lost upon nominalization than Voice, which is less likely to be lost than Aspect, etc. (Noonan 1985: 57; Malchukov 2004: 27–46, 56–69).8

The vast majority of labile verbs in our data retain lability under nominalization. Examples (32)–(34) show lability in action nominals, derived with the suffix -mine; P-lability is exemplified in (32), A-lability in (33), and reflexive lability in (34). In Estonian, the subject and object arguments of the action nominal receive genitive coding.9

   Jüri annoy-PRS.3SG mother.PART
   ‘Jüri annoys mother.’
   b. Ema pahanda-b. → ema pahandamine
   Mother annoy-PRS.3SG
   ‘Mother is annoyed.’

(33) a. Jüri kiirusta-s last. → Jüri lapse kiirustamine
   Jüri hurry-PST.3SG child.PART
   ‘Jüri hurried the child.’
   b. Jüri kiirusta-s. → Jüri kiirustamine
   Jüri hurry-PST.3SG
   ‘Jüri hurried.’

(34) a. Jüri siruta-s kätt. → Jüri käe sirutamine
   Jüri stretch-PST.3SG hand.PART
   ‘Jüri stretched his hand.’
   b. Jüri siruta-s. → Jüri (enda) sirutamine
   Jüri himself GEN stretch:ACNOM
   ‘Jüri stretched (of himself).’


9 Admittedly, such double genitives are avoided in the written language due to potential ambiguities in thematic role identification. However, we do not agree with Erelt (2009: 21) that the subject and object genitive cannot co-occur together in the same nominalized NP. Native speakers accept and use such genitive subjects and objects together, especially when the NP contains other signs to help avoid the ambiguity caused by two successive genitives. For instance, double genitives are more easily accepted if they are separated by other constituents or differ in terms of number assignment.
The picture is similar with the active past participles (APP) of labile verbs used as adjectives; see the A-labile participial adjective in (35), the reflexively labile adjective in (36) and the reciprocally labile adjective in (37). Note that upon adjectivization, the arguments of the verb retain the case marking they have in the finite clause.

(35) a. Jüri koli-b klaverit. \(\rightarrow\) klaverit kolinud Jüri
Jüri move-PRS.3SG piano:PART piano:PART move:APP Jüri
‘Jüri moves the piano.’ ‘Jüri who has moved the piano’
b. Jüri koli-b maale. \(\rightarrow\) maale kolinud Jüri
Jüri move-PRS.3SG countryside:ALL countryside:ALL move:APP Jüri
‘Jüri is moving to the country.’ ‘Jüri who has moved to the country’

(36) a. Jüri heiti-s kivi. \(\rightarrow\) kivi heitnud Jüri
Jüri throw-PST.3SG stone:GEN stone:GEN throw:APP Jüri
‘Jüri threw a stone.’ ‘Jüri who has thrown a stone’
b. Jüri heiti-s selili. \(\rightarrow\) selili heitnud Jüri
Jüri throw-PST.3SG on_back on_back throw:APP Jüri
‘Jüri lay down.’ ‘Jüri who has lain down.’

(37) a. Jüri ja Mari suudle-vad last. \(\rightarrow\) last suudelnud Jüri ja Mari
Jüri and Mari kiss-3PL child:PART child:PART kiss:APP Jüri and Mari
‘Jüri and Mari are kissing the child.’ ‘Jüri and Mari who have kissed the child’
b. Jüri ja Mari suudle-vad. \(\rightarrow\) suudelnud Jüri ja Mari
Jüri and Mari kiss-PRS.3PL kiss:APP Jüri and Mari
‘Jüri and Mari are kissing.’ ‘Jüri and Mari who’ve kissed (each other)’

A distributional constraint that deserves attention concerns the restriction of lability to only some forms of the verb. This phenomenon, called \emph{partial lability} by Letuchiy (2006: 59, 61–66), can be found in Estonian as well, e.g., with the verb \emph{hauduma} ‘brood, hatch’. As the examples in (38) show, the transitive and intransitive forms of this verb coincide in the past tense, but not in the present tense:

(38) Simple past: Labile Present: Non-labile
Linnum haudu-sid oma mune. Linnum hau-vad oma mune
birds brood-PST:3PL their eggs:PART birds hatch-PRS.3PL their eggs:PART
‘Birds brooded over their eggs.’ ‘Birds are brooding over their eggs.’
This verb is labile not only in the simple past, but in all past tense forms. The formal distinction in the present tense has, however, informed an analysis which sees the transitive and intransitive as two different verbs, rather than two forms of the same verb. This treatment (reflected in Estonian lexicographic works; e.g., ŌS) is due to the derivational morphology involved: in the present tense a simple (non-derived) transitive form contrasts with an intransitive form derived with the intransitivizing suffix -u (haud-u-vad). This example, where the direction of valency derivation is relevant for the lability of a particular form of a particular verb, brings us to the more general question of the diachronic development of lability, which we address in the next section.

4 The development of lability in Estonian

In the investigation of the diachrony of the Estonian labile syntactic pattern, we face an equation with several unknowns, because we do not have at our disposal a database of labile patterning through the centuries. This lack notwithstanding, various types of indirect evidence enable us to draw conclusions about the historical sources of lability in Estonian.

The changes in the extent of lability in Estonian over the last two centuries, as well as a comparison with the closely related Finnish, which, instead of lability, makes use of very productive and regular derivational morphology, suggest that lability is an innovation in Estonian. We use as our starting point two simple facts: first, the long-lasting contact between Estonian and German,10 a language relatively rich in labile verbs (cf. Grewendorf 1989: 178–187; Haspelmath 1993: 101–102; Zifonun et al. 1997: 1332–1333, 1862–1863; Letuchiy 2006: 228–229; Ágel 2007);11 and second, the fact that the majority of the labile verbs in our corpus are derived verbs. Finally, we will consider the question of why Estonian displays so many more labile verbs than Finnish.

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10 Although earlier contacts were with Low German, we are concerned here, rather, with the effects of contact with High German, which effectively replaced Low German in Estonia from the 17th century on. We do not have sufficient sources available to evaluate the extent of lability in earlier periods.

11 Some of these works discuss labile verbs under other terms, such as diffuse verbs, recessive (German rezessiv) verbs, ergative and theme-verbs (cf. Grewendorf 1989: 1–2, 178–187; Zifonun et al. 1997: 1332–1333, 1862–1863 and Ágel 2007).
4.1 Language contact as a source of lability

The German influence on Estonian lexicon and grammar is well attested (Kask 1970; Ariste 1981: 26–33, 97–147; Hinderling 1981; Rätsep 1983; Hasselblatt 1990; Lehiste 1999; Ross 2002). We also know that practically all the texts published in Estonian before the 19th century were written by native Germans, often with deficient knowledge of Estonian (Kask 1970: 108–109). Thus, we may hypothesize that German has imparted some of its labile syntax to written Estonian, via erroneous verb choices made in the course of translation from German to Estonian, for example. The writings of the Estonian grammarians from the second half of the 19th and first half of the 20th century support this assumption. Wiedemann, for instance, points out that certain Estonian transitive verbs had acquired an intransitive meaning mirroring the distribution of their German equivalents (Wiedemann 2005 [1875]: 261). Later, Aavik (1936: 217) warned that German syntax was creeping into Estonian usage, as certain verbs were being used with the wrong valency pattern. Unfortunately, there is no reliable way to even approximately assess the amount of labile verbs in the period between the first language sources in the 16th century and the early 20th century. The dictionaries from this period are not comprehensive with regard to the number of verbs in the language, and they do not include enough examples in their verb entries to enable making definitive judgments about their valency. Historical corpora do not resolve this either, because their size is not sufficient to make judgments about the number of labile verbs in the given period.

The strongest evidence for lability calquing from German comes from a comparison of verbs in the modern languages. We examined the valency of German equivalents of the Estonian verbs in our corpus, and the degree of overlap is striking.\(^\text{12}\) Of all the labile verbs in our dataset, 32 (34% of the total) had a labile equivalent in German (see Table 5). Examples of German-Estonian lability matches are given in (39) (Estonian *kaaluma* and German *wiegen*, ‘weigh’) and (40) (Estonian *tarretama* and German *erstarren*, ‘congeal’).

(39) a. Estonian transitive German transitive

\[
\begin{align*}
\text{Ta } & \text{ kaalus } \text{kaks kilo mannat.} & \text{Er } & \text{wog } \text{zwei Kilo Gries.} \\
\text{s/he weighed two } & \text{kg semolina} & \text{he weighed two } & \text{kg semolina} \\
\text{‘He weighed two kilograms of semolina.’} 
\end{align*}
\]

---

The lability of the German verbs was checked by native language guides Florian Siegl, Sandra Birzer and Björn Hansen and the German valency dictionary (VALBU).
b. Estonian intransitive  
\textit{Kott} \textit{mannat} \textit{kaalub} \textit{kaks} \textit{kilo.}  
\textit{Ein Sack} \textit{Gries} \textit{wiegt} \textit{zwei} \textit{Kilo.}  
‘A bag of semolina weighs two kg’

<table>
<thead>
<tr>
<th>Estonian</th>
<th>German</th>
<th>English translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ehmatama</td>
<td>erschrecken</td>
<td>‘startle (tr./intr.)’</td>
</tr>
<tr>
<td>ette kandma</td>
<td>vortragen</td>
<td>‘perform / present (tr./intr.)’</td>
</tr>
<tr>
<td>hauduma</td>
<td>garen</td>
<td>‘brood, overdo (tr.)\textsuperscript{13} / cook slowly (intr.)’</td>
</tr>
<tr>
<td>jahmatama</td>
<td>erschrecken</td>
<td>‘startle (tr./intr.)’</td>
</tr>
<tr>
<td>jäätama</td>
<td>frieren</td>
<td>‘freeze (tr./intr.)’</td>
</tr>
<tr>
<td>kaaluma</td>
<td>wiegen</td>
<td>‘weigh (tr./intr.)’</td>
</tr>
<tr>
<td>keerama</td>
<td>umdrehen, umkehren</td>
<td>‘turn (tr./intr.)’</td>
</tr>
<tr>
<td>kleepima</td>
<td>kieben</td>
<td>‘stick (tr./intr.)’</td>
</tr>
<tr>
<td>kolima</td>
<td>umziehen</td>
<td>‘move (tr./intr.)’</td>
</tr>
<tr>
<td>kolletama</td>
<td>vergilben</td>
<td>‘yellow (tr./intr.)’</td>
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<tr>
<td>külmetama</td>
<td>frieren</td>
<td>‘freeze (tr./intr.)’</td>
</tr>
<tr>
<td>laadima</td>
<td>laden</td>
<td>‘charge (tr./intr.)’</td>
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<td>maitsma</td>
<td>schmecken</td>
<td>‘taste (tr./intr.)’</td>
</tr>
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<td>mekkima</td>
<td>schmecken</td>
<td>‘taste (tr./intr.)’</td>
</tr>
<tr>
<td>moorima</td>
<td>schmoren</td>
<td>‘stew (tr./intr.)’</td>
</tr>
<tr>
<td>mängima</td>
<td>spielen</td>
<td>‘perform, play (tr.) / play (intr.)’</td>
</tr>
<tr>
<td>määrima</td>
<td>schmieren</td>
<td>‘lubricate / spread (intr.), get smeared’</td>
</tr>
<tr>
<td>najatama</td>
<td>lehnen</td>
<td>‘support (tr.) / lean (intr.)’</td>
</tr>
<tr>
<td>passima</td>
<td>passen</td>
<td>‘try on (tr.) / fit (intr.)’</td>
</tr>
<tr>
<td>peatama</td>
<td>anhalten</td>
<td>‘stop (tr./intr.)’</td>
</tr>
<tr>
<td>popsima</td>
<td>qualmen</td>
<td>‘puff (tr./intr.)’</td>
</tr>
<tr>
<td>popsutama</td>
<td>qualmen</td>
<td>‘puff (tr./intr.)’</td>
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<td>praatima</td>
<td>braten</td>
<td>‘fry (tr./intr.)’</td>
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<td>pritsima</td>
<td>spritzen</td>
<td>‘spray (tr./intr.)’</td>
</tr>
<tr>
<td>puhkama</td>
<td>ausruhen</td>
<td>‘unwind, relax (tr.) / rest (intr.)’</td>
</tr>
<tr>
<td>pöörama</td>
<td>umdrehen, umkehren</td>
<td>‘turn (tr./intr.)’</td>
</tr>
<tr>
<td>seisatama</td>
<td>anhalten</td>
<td>‘stop (tr./intr.)’</td>
</tr>
<tr>
<td>söötma</td>
<td>fahren</td>
<td>‘drive (tr./intr.)’</td>
</tr>
<tr>
<td>tarretama</td>
<td>erstarren, versteifen</td>
<td>‘congeal (tr.) / grow stiff (intr.)’</td>
</tr>
<tr>
<td>toetama</td>
<td>lehnen</td>
<td>‘support (tr.) / lean (intr.)’</td>
</tr>
<tr>
<td>tüürima</td>
<td>steuern</td>
<td>‘steer (tr./intr.)’</td>
</tr>
<tr>
<td>ulatama</td>
<td>reichen</td>
<td>‘hand (tr.)/reach (intr.)’</td>
</tr>
</tbody>
</table>

\textsuperscript{13} Very rare (see EKSS, entry \textit{hauduma}).
(40) a. Estonian transitive

Kramp tarretas lihaseid.
cramp stiffened muscles
‘The cramp stiffened the muscles.’

b. Estonian intransitive

Pisarad tarretasid tema põskedel.
tears congealed her on cheeks
‘The tears congealed on her cheeks.’

Importantly, many of the Estonian verbs in the table are loanwords from German, namely: tüürima, laadima, moorima, praadima, kleepima, määrima, pritsima, mekkima, passima and tarretama; the verb keerama is an older Germanic loanword (see Raun 2000) and ette kandma is a calque of the German vortragen (a compound of ette [cf. vor] ‘in front/ahead of’ and kandma [cf. tragen] ‘carry’; see Hasselblatt 1990: 68).

One might claim that the Estonian-German overlap in the domain of lability is a mere coincidence, but there are very good reasons to consider this improbable. First, neither Estonian nor German has such a large amount of labile verbs to make it likely that such a considerable overlap could be coincidental. Set-theoretically, the chance that in a population of thousands (all verbs in the language) two sets of 100–200 elements would show such an overlap in non-cognate languages is minimal. Furthermore, lability seems to be a lexical rather than grammatical phenomenon: it is more similar to a polysemy relation between meanings than to valency derivation. This is attested by the fact that the occurrence and distribution of lability in individual languages is more idiosyncratic than, for example, grammatical means of valency derivation, e.g., affixal causativization, anticausativization or inflectional voice marking (Letuchiy 2009: 238–239). In other words, the distribution of lability in language $x$ is not easily predictable from the distribution of lability in other languages, which makes the Estonian-German overlap even more striking.\(^{14}\) Based on the assumption that the transfer of lability from one language to another is essentially a transfer of poly-

\(^{14}\) It can easily be demonstrated that Estonian does not have such an overlap with other languages with labile verbs. Galiamina (2006: 366–368) for instance, discusses the labile verbs in Songhay (West-African): out of the 18 P-labile, reflexively labile and reciprocally labile verbs she mentions, only one (‘wash’) has a labile counterpart in Estonian.
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We will speak about polysemy copying following Heine and Kuteva (2005: 100–103) when referring to this type of calque.

The Corpus of Old Written Estonian (http://www.murre.ut.ee/vakkur/) is too small to check the German polysemy-copy hypothesis empirically. The only labile verb occurring frequently in the Estonian-German parallel corpus (comprising texts which appeared between 1637 and 1641, written by the German-born pastor Heinrich Stahl), is the verb *pöörama* ‘turn (tr./intr.).’ This verb occurs in the texts 62 times, of which 59 contexts employ the Estonian verb with the same valency as the German verb in the original German text (see Table 6). In most cases, the German verb (mostly *kehren*) was used transitively with an autocausative meaning ‘turn oneself’ marked by the reflexive pronoun *sich* in object position. In accordance with this, the Estonian translation contained the verb *pöörama* and the reflexive pronoun *end*; cf. Example (41) where the Estonian text is followed by its German original.

(41) Ninck *kus hend se öigko pöhrap ommast and where self.obj this right turn:prs.3sg own:ela öigkussest / ninck teep kurja / ninck ellap keicke righteousness:ela and do:prs.3sg evil.part and live:prs.3sg all.gen hirmsade jerrel / kumbat üx Jummalana+ +kartmatta horror:pl.gen after which:pl one godless/profane tehp / peax se elliama? do:prs.3sg should he live:inf German: Wo *sich* der Gerechte *kehret* von seiner Gerechtigkeit vnd thut böses / vnd lebet nach allē greweln / die ein Gottloser thut / solt der leben? ‘And the right one who has turned away from his rightness, does evil deeds and lives the horrible life of a profane one, where should he live?’ (Corpus of Old Literary Estonian <<1638-Stahl__ 28. p. 287>>)

In nine cases the German verb was used intransitively (without a reflexive pronoun) and this was reflected in the Estonian translation, where *pöörama* appeared also as an intransitive verb without a reflexive pronoun; cf. (42)

(42) Ninck *nem~at tousit ülles sel sammal And they get:pst:3pl up this:ade same:ade tundil / pöhresit jelles Jerusalemma / ninck löidsit hour:ade turn:pst:3pl again Jerusalem:ill and find:pst:3pl needt üx+ +töist+ +kümnen öhes+ +kohs/ . . . those eleven together
‘And they got up at the very same hour, turned to Jerusalem and found the
eleven together.’

(Corpus of Old Literary Estonian <<1638-Stahl__ 129. lk 66>>)

| Table 6: Transitivity of Estonian pöörama compared with German translation equivalents in the
Estonian-German parallel corpus (see http:/ /www.murre.ut.ee/vakkur/, accessed on 11 May 2011) |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Estonian transitive</td>
</tr>
<tr>
<td>Estonian intransitive</td>
</tr>
</tbody>
</table>

As can be seen from Table 6, there were only three cases where the Estonian and
German texts were at odds with respect to the valency of the verb ‘turn’. We be-
lieve that the figures in the table constitute serious evidence that the translator
has used his linguistic intuition as a native German speaker in choosing whether
to use the Estonian verb transitively or intransitively. This is a particularly good
example for examining the role of linguistic intuition, since the transitive use
with the reflexive object pronoun is semantically very similar to the intransitive
usage, and hence reflects a stylistic choice rather than a difference in meaning.

An additional argument in favor of valency copying from German is provided
by the fact that, unlike German, Estonian marks passive participles distinctly
from active participles: active participles are marked by the inflectional suffix
-nud (vihasta-nud ‘got angry,’ APP), passive participles are marked by the suffix
-tud (vihasta-tud ‘made angry,’ PPP). German, which distinguishes between ac-
tive and passive by means of auxiliary alternation, uses one past participle for
both voices (Zifonun et al. 1997: 1702–1708, 1808–1821). Hence, where the German
participle itself allows ambiguity, Estonian grammar requires a distinction to be
made, which leaves ample room for mistaken translation. Based on these facts,
one can see how a German scholar with deficient knowledge of Estonian could
have translated the German participle into Estonian with an active participle
where the passive participle ought to be. Frequent erroneous translations, along
with the fact that Estonian Lutherans had to learn religious texts by heart, could
have led to a rereanalysis of the active participle of the transitive verb into a special
form of the verb with only one argument position. The following example from a
text written in 1843 by German-born Gustav Heinrich Schüdlöffel shows such an
erroneous use of the participial form of the Estonian verb pesema ‘wash’. Instead
of the passive past participle pes-tud, the author uses the active past participle
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*pes-nud* in a construction with the auxiliary *saama* ‘get’. Note that in this case, the German counterpart, *waschen*, is not labile, and cannot be used intransitively. This lends further support to the idea that erroneous translation plays a role.

(43) Agga Mik ei olnud weel mitte ni kangekaelne, waid but Mik NEG be:APP yet NEG so stubborn but tunnistas, et temma, ja kirjotaja isse, ja jodik confess:pst.3sg that he and writer self and drunker Mats olnud rööwliks, ja et nemmad wimaks, kui Mats be:APP robber:transl and that they finally when Wing sai nõgge musta onmast silmast ärra Wing get:pst.3sg grime:gen black:part own:ela eye:ela out pes-nud, temmale ja Kadrile siddunud käed ja wash-APP he:all and Kadri:all tie:app hands and suud kinni mouths up

‘But Mik was not so stubborn yet, and he confessed that he and the scribe himself, and the drunkard Mats were the robbers, and that they, finally, when Wing got the grime *washed out* of his eyes, had tied up his and Kadri’s hands and mouths.’ (Corpus of Old Literary Estonian <<1843-Schüdlöffel_982>>, accessed on 9.11.2011)

The scarcity of early texts means that we cannot compile enough evidence to prove definitively that this development took place. Nevertheless, Example (43) suggests that the role German has played in the rise and spread of lability in Estonian is rather multifaceted. As mentioned above, one third of the labile verbs in our corpus have a direct labile equivalent in German. Moreover, as a result of erroneous translations, Germans writing in Estonian may have caused the labile interpretation of verbs in Estonian even in cases where their German counterparts are not labile.

Although the role of German in the spread of lability in Estonian must not be underestimated, it is not the only language fostering the development of lability in Estonian. As with other (European) languages, contemporary Estonian is exposed to a strong influence from English; in some cases of English loans, like German, we observe a transfer of lability. Example (44) contains a relatively new labile loanword from English.15

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15 Other recent loanwords from English which can occur as labile include *printima* ‘print’ and *skännima* ‘scan’. Intransitive uses of these verbs, however, are very rare and have a strong colloquial flavor; therefore we have not counted them in our lability dataset.
(44) a. *Ma logi-n sind välja.*
   I.nom log-prs.1sg you.part out
   ‘I (will) log you out.’

b. *Sa logi-d välja.*
   you.nom log-prs.2sg out
   ‘You (will) log out.’

4.2 Lability and verb derivation

The most striking property of the labile verbs in our data is the high proportion of derived verbs, as examined in Section 3.4.1. The majority of the labile verbs (52 of 93) are derived verbs manifesting overt derivational marking which no longer need be productive. Furthermore, the majority of the derived verbs (41 of 52) are derived with the causative/factitive suffix -ta or with the complex suffixes -sta or -nda, in which -ta is the final element in the derivation chain. Meanwhile, it is striking that none of the labile verbs in our dataset contains the suffix -u, which is the valency-decreasing counterpart of the causative/factitive suffix.

It seems, therefore, that in Estonian the development of lability has proceeded in the direction of anticausativization rather than causativization. In our data, 41 verbs are derived causatives/factitives, which have acquired a secondary anti- or autocausative use, thus becoming labile. The question arises of why the emergence of lability has proceeded in the direction of anticausativization rather than causativization. In other words, why have ta-verbs became labile (and acquired an additional, intransitive use) and not u-verbs (acquiring a transitive use). In order to answer this question, we need to look at the history of these derivational suffixes.

While there is no evidence showing any significant changes in the productivity or regularity of the causative/factitive suffix -ta during the last two centuries (the only well-documented period for Estonian), the anticausative suffix -u has undergone a significant revival in the past 120 years. Aavik (1920: 8) claims that there were only about twenty u-verbs in written Estonian in the period 1865–1890, whereas Hermann writes that there were more such verbs before that period (see Mäger 1991: 334). In the early 20th century, Estonian language reformers, led by Aavik and following the example of Finnish and South Estonian, which had productive and regular u-derivation, made serious efforts to revive this valency-decreasing suffix, propagating its use and creating many neologisms (Aavik 1914: 25–26; Aavik 1920: 8–10; Rätsep 1976: 213–215; Raag 1998: 34).16 The results

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16 As pointed out by a reviewer, the language reform movement in Estonia and its relative success means that the development of written Estonian in the 19th–20th century is quite unique,
are apparent in the second half of the century; Pihlak (1992: 3) counts 1500 $u$-verbs occurring in the reverse dictionary of Estonian (Hinderling and Hitzenberger 1979).

On the basis of this evidence, we might speculate that the limited use of the $u$-derivation was compensated by labile uses of the (originally transitive) verbs derived by the suffix -$ta$. A conceptual gap in the lexicon created by the $u$-derivation losing its productivity in the late 1800s could, in principle, be filled by two different strategies: a) suppletion, i.e., coinage of a new verb from a separate root/stem, or b) lability, i.e., the use of the transitive verb in intransitive contexts. As the expression of a causative/anticausative contrast by means of suppletion (cf. $die$/kill; see Haspelmath 1993; Nichols et al. 2004: 152, 184–185) is rather atypical for Estonian, lability, a more economical way for establishing new valency contrast, became the central compensatory mechanism for the lack of $u$-verbs. Thus, following the observations made by Aavik and Hermann, we would expect an increase in the number of labile verbs in the second half of the 19th century, the all-time low point of $u$-derived verbs. However, in the subsequent century, the artificial revitalization of the -$u$ affix through the language reform movement would be expected to demotivate the use of the labile pattern (as the $u$-derived verbs fill in the intransitive component of the semantic pair) and consequently diminish the number of labile verbs. The available historical evidence supports these assumptions.

In his Estonian grammar from the late 19th century, Wiedemann reports labile usage of 29 verbs, the majority of which still exist as verbs in contemporary Estonian but are no longer labile (Wiedemann 2005 [1875]: 253–272). Furthermore, in 1920 Aavik reports both transitive and intransitive uses of, among others, seven highly frequent verbs (e.g., $elatama$ ‘maintain financially’ and $koguma$ ‘collect, gather’), none of which are labile in contemporary Estonian (Aavik 1920: 31). Aavik himself led efforts within the intensive language reform movement to increase the use of overt valency marking, and thereby eliminate the ambiguity caused by lability. He also mentions that the verb $muutma$ ‘change’, which already by that time (at the climax of the Estonian language reform) was used only transitively, had also been employed intransitively earlier (Aavik 1920: 6–7). All these frequently used labile verbs seem to have compensated for the vacuum created by the lack of productive marking of valency decrease in the language. This conjecture could be checked empirically by comparing the number of intransitive

and not reflective of the normal development of a natural spoken language (see Raag 1998). While this is indeed the case, the effects on verb transitivity today are not entirely those that were planned by the language reformers, e.g., while the use of $u$-derived verbs did expand, lability remained in use alongside derivation in the language.
occurrences of *ta*-verbs with the number of their competing *u*-verbs at two different time periods. Unfortunately, the portions of the Corpus of Written Estonian (http://www.cl.ut.ee/korpused/kasutajalildes/) and the Corpus of Old Written Estonian (http://www.murre.ut.ee/vakkur) covering the 19th century are too small to determine the use of all *ta*-verbs and their *u*-counterparts before the beginning of the Estonian language reform. We therefore investigated the occurrence of three frequent *ta*-verbs and their *u*-counterparts during two periods – 1800–1899 and 1950–1979; the results (shown in absolute numbers) are presented in Table 7.17

The figures in the table clearly confirm our hypothesis. As can be seen, in the 19th century, the verb *ulatama* ‘reach’ is used intransitively almost twelve times more often than transitively. In the early second half of the 20th century, the distribution is the reverse: transitive uses account for 86% (54 out of 63) of all occurrences of the verb. The frequent intransitive use in the 19th century clearly correlates with the infrequency of its intransitive counterpart – the *u*-verb, which

<table>
<thead>
<tr>
<th>Table 7: Intransitive uses of <em>ta</em>-verb compared with <em>u</em>-verbs</th>
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</thead>
<tbody>
<tr>
<td><em>ula-ta-ma</em> ‘reach (tr./intr.)’</td>
</tr>
<tr>
<td>TR</td>
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<tr>
<td>5</td>
</tr>
<tr>
<td><em>ehma-ta-ma</em> ‘startle (tr./intr.)’</td>
</tr>
<tr>
<td>TR</td>
</tr>
<tr>
<td><em>pea-ta-ma</em> ‘stop (tr./intr.)’</td>
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<td>TR</td>
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</tbody>
</table>

17 The search was made on 6 November 2011. The size of the sub-corpora covering the two periods is as follows. 19th century: 759 722 tokens (the Corpus of Written Estonian with 348 000 tokens plus the Corpus of Old Literary Estonian with 409 722 tokens); 1950–1979: 1 066 600 tokens (all from the Corpus of Written Estonian).
occurs only twice. These figures show that in the 19th century, the labile verb *ula-
ta-ma* was the main designator for the lexical meaning ‘reach (intr.)’ (see Exam-
ple 45), while in the second half of the 20th century, the main designator for the
same meaning was the derived anticausative *ulatu-ma* (see 46).

(45) *Sõjamehed pange rõõmu tuled põlema, mille leegid*
warrior:pl put:2imp joy:gen blaze:pl burn:inf whose flame:pl
taewani *ulata-wad* ning terwele ilmale
heaven:term reach:prs.3pl and whole:all world:all
kuulutawad, missugust otsata suurt ŏnne
announce:prs.3pl what:part endless great:part happiness:part
siin sureliste rinnad tunnewad.
here mortal:pl.gen breast:pl feel:prs.3pl
‘Warriors, put the blaze of joy on fire, whose flames will reach Heaven and
proclaim to the whole world what endless happiness is felt in the breasts of
all mortals here.’ (Corpus of Written Estonian <<AJA1890\pro0051>>)

(46) *Ta istus vaikides ning jaagu silmitsedes, mis hädavaevalt*
s/he sit:pst:3sg silently and feel:part watch:ger which barely
põrandani *ulatu-sid*.
floor:term reach:pst:3pl
‘S/he was sitting silently watching her/his feet, which barely reached the
floor.’
(Corpus of Written Estonian <<ILU1970\ilu0037>>)

In the case of *ehmatama* ‘startle (tr./intr.)’ the tendency is not as clearly
pronounced, but the correlation with the presence or absence of an *u*-derived verb
backs up our conjecture. In the 19th century, intransitive uses prevail over transi-
tive (77 versus 24 hits), whereas in the period 1950–1979 we find about the same
number of hits for transitive and intransitive. That the labile use of the verb
*ehmatama* was the only option for expressing the intransitive meaning ‘become
startled’ at this period is attested by zero occurrences of the *u*-verb *ehmuma*
‘startle (intr.)’. In the period 1950–1979, on the other hand, the *u*-verb was the
main means for expressing ‘become startled’ (22 hits for *ehmuma* against 7 hits
for *ehmatama*, intr.).

The negative correlation between lability on one hand and the initial sup-
pression of *u*-derivation and its later revival, on the other, is strongest with the
last verb, *peatama*. In the 19th century, the intransitive uses prevail by far, with 14
out of 15 hits, whereas in the period 1950–1979 the transitive uses overwhelmingly
prevail, with 30 out of 32 hits. The originally transitive derivative *peatama* was
the only means for expressing the meaning ‘stop (intr.)’ by the end of the 19th century. The subsequent language reform, however, advanced the u-verb as a means of expressing the intransitive concept, and by the second half of the 20th century, this verb is vastly more frequent than the intransitive peatama (cf. 99 vs. 2 hits).

Although the historical evidence supports our scenario, according to which lability came to compensate for the loss of productivity and regularity of the valency-decreasing u-derivation, it is not yet clear why the verbs derived with the suffix -ta served to fulfill this function better than other verbs. We believe that the reason lies in the syncrétism of the -ta suffix. As already noted in Section 3.4.1, most of the Estonian labile verbs are coinages of the suffix -ta (including compound suffixes like -sta-, -nda, -tle and -rda), which is functionally (and probably also diachronically) a merger of three suffixes. Two of them – the factitive and momentaneous suffixes – derive not only transitive (e.g., peegel-da-ma ‘reflect’, lirtsa-ta-ma ‘slosh’), but also intransitive (e.g., punas-ta-ma ‘blush’, muia-ta-ma ‘grin’) verbs (Kasik 2009: 46–48, 63–74). The resemblance (and often identity) in form between the valency-increasing (causative) suffix and the other suffixes, we claim, led to blurring of the functions of the different ta-verbs and facilitated the misinterpretation of derived causatives as intransitives. It could be argued that the reanalysis of derived transitives as intransitives gained ground first in the North Estonian dialects, because the -u- suffix was almost defunct there. Here it is important to mention again that Standard Estonian was based on the North Estonian dialect. Wiedemann noted in his grammar that the meaning of verbs derived with the suffix -ta was fundamentally transitive and that exceptions are mainly due to the fact that in North Estonian the momentaneous intransitives formally coincide with causative transitives (Wiedemann 2005 [1875]: 261). South Estonian dialects, on the other hand, are like Finnish in keeping transitive and intransitive verbs formally distinct. Unlike North Estonian, detransitivization of derived causatives is allowed (using a pattern of derivation from two affixes: -ta- + -u- → -tu-), and the momentaneous suffix is formally distinguished from the factitive/causative suffixes (Keem and Käsi 2002: 30). However, the North Estonian dialect was adopted as the basis for Standard Estonian, and accordingly, the syncretistic pattern in use in what was the Northern Estonian dialect spread to the standard use, further supporting the spread of lability in the language.

18 Resemblance is probably one reason why derived verbs are more likely to be labile than non-derived verbs (we thank Dunstan Brown for this observation). A derived causative/anticausative verbal pair consists of members which resemble each other because of sharing the same stem, hence lending themselves better to shifts in meaning, whereas a non-derived pair consists of members with different stems.
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The final question we raise in this regard is why, after the suffix -u became productive again, the use of lability did not disappear from the language. We can speculate that lability is currently losing ground to u-verbs, at least in terms of token frequency (recall the figures in Table 7). Its full disappearance is, however, an unlikely scenario: there is evidence showing that Estonian anticausative lability is an adaptive phenomenon, which has found its niche next to u-derivation in the language system. Out of 93 verbs in our corpus, 48 exist alongside an u-verb derived from the same stem. In order to test to what extent u-verbs challenge the intransitive uses of labile verbs, we compared the meanings of the intransitive uses of labile verbs with the meanings of the respective u-verbs. Strikingly, in most of the cases (27 out of 48) there was a meaning difference between the two, and in most of these cases (21 of 27) the meaning difference was aspectual. The monovalent uses of the labile verbs have durative meaning or are aspectually polysemous in denoting either atelic activities/states or telic achievements/accomplishments (in terms of Vendler 1957). The u-verbs, on the other hand, denote only telic achievements/accomplishments; see Table 8.

<table>
<thead>
<tr>
<th>Labile verb: atelic or polysemous</th>
<th>u-verb: telic (achievement/accomplishment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>rõõmustama (intr.) ‘rejoice’</td>
<td>rõõmustuma ‘cheer (up)’</td>
</tr>
<tr>
<td>kurvastama (intr.) ‘sadden’</td>
<td>kurvastuma ‘get sad’</td>
</tr>
<tr>
<td>imestama (intr.) ‘wonder’</td>
<td>imestuma ‘get amazed’</td>
</tr>
<tr>
<td>külmetama (intr.) ‘freeze’</td>
<td>külmuma ‘freeze up’</td>
</tr>
<tr>
<td>tarretama (intr.) ‘congeal, grow stiff’</td>
<td>tarduma/tarretuma ‘get stiff’</td>
</tr>
<tr>
<td>vihastama (intr.) ‘anger’</td>
<td>vihastuma ‘get angry’</td>
</tr>
<tr>
<td>jäätama (intr.) ‘freeze, ice’</td>
<td>jäätuma ‘get frozen, iced’</td>
</tr>
<tr>
<td>kolletama (intr.) ‘be yellow’</td>
<td>kolletuma ‘go yellow’</td>
</tr>
<tr>
<td>hullutama (intr.) ‘fool around’</td>
<td>hulluma ‘get crazy’</td>
</tr>
<tr>
<td>tolmutama (intr.) ‘raise dust’</td>
<td>tolmuma ‘get dusted’</td>
</tr>
<tr>
<td>sirutama (intr.) ‘stretch’</td>
<td>sirguma/sirutuma ‘stretch out’</td>
</tr>
<tr>
<td>toetama (intr.) ‘lean’</td>
<td>toetuma ‘lean, get support from’</td>
</tr>
<tr>
<td>pehastama (intr.) ‘rot’</td>
<td>pehkima/pehastuma ‘get rotten’</td>
</tr>
<tr>
<td>päävitama (intr.) ‘tan’</td>
<td>päävituma ‘get tanned, get brown’</td>
</tr>
<tr>
<td>pingutama (intr.) ‘strain’</td>
<td>pingutuma ‘get strained’</td>
</tr>
<tr>
<td>ehtima (intr.) ‘getting dressed’</td>
<td>ehtuma ‘dress up’</td>
</tr>
<tr>
<td>peegeldama (intr.) ‘reflect’</td>
<td>peegelduma ‘get reflected’</td>
</tr>
<tr>
<td>keerutama (intr.) ‘buzz, twist around’</td>
<td>keerutuma ‘get twisted around oneself’</td>
</tr>
<tr>
<td>kleepima (intr.) ‘stick’</td>
<td>kleepuma ‘gum up, cleave to’</td>
</tr>
<tr>
<td>viivitama (intr.) ‘take time, delay’</td>
<td>viivituma ‘get delayed’</td>
</tr>
<tr>
<td>määrima (intr.) ‘spread’</td>
<td>määrduma ‘get smeared’</td>
</tr>
</tbody>
</table>

Table 8: Aspectuality contrasts between monovalent use of labile verbs and u-verbs

The final question we raise in this regard is why, after the suffix -u became productive again, the use of lability did not disappear from the language. We can speculate that lability is currently losing ground to u-verbs, at least in terms of token frequency (recall the figures in Table 7). Its full disappearance is, however, an unlikely scenario: there is evidence showing that Estonian anticausative lability is an adaptive phenomenon, which has found its niche next to u-derivation in the language system. Out of 93 verbs in our corpus, 48 exist alongside an u-verb derived from the same stem. In order to test to what extent u-verbs challenge the intransitive uses of labile verbs, we compared the meanings of the intransitive uses of labile verbs with the meanings of the respective u-verbs. Strikingly, in most of the cases (27 out of 48) there was a meaning difference between the two, and in most of these cases (21 of 27) the meaning difference was aspectual. The monovalent uses of the labile verbs have durative meaning or are aspectually polysemous in denoting either atelic activities/states or telic achievements/accomplishments (in terms of Vendler 1957). The u-verbs, on the other hand, denote only telic achievements/accomplishments; see Table 8.
As can be seen in the table, this division of labor affects mainly the labile verbs derived with the suffix -ta (only ehtima, kleepima, and määrima are not ta-verbs). This Aktionsart distinction seems to be relevant for the distribution of lability in the verb lexica of other languages as well (Letuchiy 2009: 235–236). In Estonian, however, it is of crucial importance, as it shows how two uniform classes of verbs – the labile verbs derived with the suffix -ta and the anticausatives derived with the suffix -u – are adapting to co-exist by dividing the semantic labor along aspectual lines.

Recapitulating the discussion in this and the previous section, we claim that the rise and spread of lability in Estonian is due to the following independent factors: a) language contact with German, b) fluctuations in productivity and regularity of the valency-decreasing derivation in the recent history of Estonian, and c) the phonetic merger of derivational suffixes, leading to misinterpretation of the valency patterns of their derivatives. We could also predict that, due to its aspectual complementarity with the anticausative derivation, once in circulation, lability should not be expected to disappear from the language.

The above factors, taken together, explain the existence of the great majority of the labile verbs in our database and as such, are sufficient to mobilize analogy as a powerful mechanism of the generalization of linguistic features (Langacker 1987: 445–447; Hopper and Traugott 2003: 63–70). In fact, Estonian labile verbs provide a thought-provoking example of how analogy actually works. There are several examples of related pairs of verbs in our corpus which include one derived and one non-derived verb, both of which are labile. In such cases, we can observe the spread of the labile syntactic pattern over a derivational family. We call this phenomenon clustered lability; it is illustrated in Example (47) with the sound symbolic verb lirtsama and its derivative lirtsatama.

(47) a. Simple intransitive
   Pori lirtsas jala all. mud sloshed foot.gen under
   'The mud squelched underfoot.'

   Derived intransitive
   Pori lirtsatas jala all. mud sloshed foot.gen under
   'The mud squelched underfoot.'

b. Simple transitive
   Jüri lirtsas kannust vett maha. Jüri sloshed from_pot water down
   'Jüri splashed water from the jug.'

   Derived transitive
   Jüri lirtsatas kannust vett Jüri sloshed from_pot water
   'Jüri splashed water from the jug.'

As can be seen, both verbs in (47) are labile and have (approximately) the same meaning. The form of these verbs suggests that the original use of the non-derived verb lirtsama would have been the intransitive one, whereas the original use of the derived lirtsatama would have been the transitive one. This judgment is, how-
ever, based solely on the fact that non-derived sound symbolic verbs are usually used intransitively, whereas sound symbolic verbs with the suffix -ta are often regarded as transitives by analogy with the causatives/factitives which share the same form of suffix. Be that as it may, the crucial observation here is that the two verbs are labile and nearly synonymous. It could be assumed that the derived verb first became labile by analogy with the other labile verbs containing the element -ta and consecutively served as a model for its non-derived base. The copying of lability was fostered by the rather general meaning of the merged element -ta, – or in other words, by its advanced desemantization, which led to synonymy with its non-derived base. The copying of lability only enhanced this synonymy. Thus, the phenomenon of clustered lability is a result of analogy between verbs with similar forms and meanings. Our data include seven such pairings of clustered, or doubly labile, verbs. Importantly, all but one of these contain sound symbolic or manner imitation verbs and, thus, we can conclude that in Estonian, clustered lability is associated with sound symbolic and manner imitation vocabulary.

4.3 A comparison with Finnish

According to Letuchiy (2006: 214), the more grammaticalized a certain valency-increasing or valency-decreasing mechanism is in a language, the less developed the corresponding type of lability will be, as overt valency marking and lability are two alternative responses to the same challenge (Haspelmath 1993; Nichols et al. 2004). As already noted in Section 3.1, Finnish, which is one of the closest cognates of Estonian, has far fewer labile verbs (Penttilä 1963; Maria Vilkuna p.c.; Anneli Pajunen, p.c.). The question to address now is which particular features of causative/anticausative derivation serve to block the spread of lability in Finnish and facilitate its spread in Estonian. The following features seem to be relevant:

1. As a rule, Estonian does not allow detransitivization of deverbal causatives, whereas Finnish does (in spite of some restrictions, see ISK: 331); as an example, take the Finnish verb *hukkua* ‘drown, intr.’, its causative derivative *huku-tta-a* ‘drown, sink, tr.’, and that verb’s decausative (reflexive) derivative *huku-tta-utu-a* ‘drown oneself’ (see Kasik 1991). Lability appears to be the only option available in Estonian for detransitivization of deverbal causatives like *liigutama* ‘move’ (see Example 24, above).

2. Estonian verb derivation is not recursive, which means that any suffix generally attaches only once to a word (Kasik 2001). This rules out the possibility of deriving secondary causatives from already derived causatives, which have been lexicalized and occur in a labile pattern, such as *kiilmetama* ‘freeze/
catch cold’. In contrast, Finnish does form such verbs: compare the causative sijoit-tta-a ‘place; invest’ and sijoit-tu-tta-a ‘make somebody place (or invest money)’, which in some cases are used as synonyms.

4. The Estonian -u suffix usually derives canonical anticausatives (i.e., verbs expressing spontaneous activities without a causer) or autocausatives (i.e., verbs used with an animate, non-agentive first argument), but only rarely proper reflexives (Kasik 1991). This means that there are no regular means for expressing true reflexivity in the Estonian derivational system, which in turn motivates the development of reflexive lability. In contrast, Finnish divides the labor between two suffixes, -u and -utu, the first deriving predominantly anti- and autocausatives, the second predominantly reflexives: compare pain-u-a ‘sink, subside’ and paina-utu-a ‘press oneself’ (ISK: 331).

5. Unlike the Estonian derivational system, which exhibits much polysemy, the Finnish system is more systematic and predictable, generally characterized by one-to-one form-to-function mapping. Affix syncretism is much rarer in Finnish, and this fact may help obstruct the semantic reanalysis of derived verbs as intransitives. By contrast, as already mentioned, the Estonian suffix -ta is very syncretistic. Consider the verb seisatama ‘stop’ (as in Example 48), which is actually a descendant of two different verbs; its transitive form is a derivative using the causative suffix -ta, whereas its intransitive form is a momentaneous verb derived with the Aktionsart suffix -(a)ta. The single phonological form is due to the phonetic merger of the causative suffix and the momentaneous suffix, which in Finnish are still distinct; cf. seisau-tta-a ‘stop (tr.), turn off’ and seis-ahta-a ‘suddenly stop, stand still’.

(48) a. Lumi seisatam-s liikluse.
    snow.NOM stop-PST.3SG traffic.NOM
    ‘The snow stopped the traffic.’

   b. Liiklus seisatam-s.
      traffic.NOM stop-PST.3SG
      ‘The traffic (suddenly) stopped.’

6. In Finnish, the general productivity and regularity of the causative and anticausative suffixes and the usage frequency of the derived verbs are higher than in Estonian (Kasik 1991, 2001; cf. also ISK: 309–347 and EKG I: 429–433).

Hence, the very features which distinguish the Estonian derivational system from its cousin, the Finnish system, go a long way toward explaining the rarity of lability in Finnish and its relative frequency in Estonian.
5 Conclusions

This study has aimed to a) provide an in-depth description of the phenomenon of lability in Estonian and b) determine the sources and structural motivation of the development of lability in the language. In order to systematically address these questions, we compiled and examined a dataset containing 93 labile verbs at the time of the study.

We classified Estonian labile verbs according to four types of lability: P-lability, A-lability, reflexive lability and reciprocal lability. In relation to this classification, we addressed several issues, such as agentivity, covert arguments, and direction of valency “derivation” among alternative uses of labile verbs, all of which are directly related to the generic problem of the discreteness and cross-linguistic applicability of these notions.

Following this classification, we discussed the formal and semantic properties of labile verbs in Estonian. A major observation pertaining to the formal properties of Estonian lability is that over half of the labile verbs bear derivational morphology, which usually has causative origins. This observation led us to the corollary that Estonian lability is essentially anticausative in terms of direction of derivation. In other words, verbs which were used transitively also began to be used intransitively.

Regarding the development of lability, we modeled and empirically tested a detailed scenario of the rise and spread of lability in Estonian, in order to test our hypothesis concerning the direction of labilization and its motivation. A crucial factor determining the rise of lability seems to have been extensive polysemy copying from German. This claim is significant for the crosslinguistic study of lability, in that language contact has not, to our knowledge, previously been discussed as a factor inducing lability. Regarding the relationship between lability and overt valency-changing derivation, we observed a negative correlation between the productivity and regularity of anticausative derivation and the range of lability in Estonian. In turn, we used this as evidence for the claim that lability has served as a compensatory mechanism for the decreased productivity and regularity of the anticausative derivation. An additional factor enabling labile uses of verbs was the phonetic merger of certain derivational affixes, leading to misinterpretation of the valency of their derivatives. We also argued that the extent of labile verbs in Estonian has broadened through the workings of a mechanism of analogy in general, and lability “clustering” around derivational families in particular.

The major contribution of the discussion of semantics concerns the diffusion of lability in the verbal lexicon, which shows a rather distinctive patterning. The hotbeds of lability in Estonian are the classes of emotion verbs and sound sym-
bolic and manner imitation verbs. Typologically frequent domains of lability, such as phasal verbs, on the other hand, do not show much lability in Estonian. These facts support Letuchiy’s (2009: 238–239) claim that lability is a typologically quirkier phenomenon (showing a higher degree of language-specific idiosyncracy) than overt valency derivation. The phenomenon of clustered lability, another peculiarity of Estonian labile verbs, concerns the spread of the labile pattern across members of the same derivational family; to our knowledge, this has not been described before in the literature on lability either.

On the basis of the available evidence – both the synchronic state of lability and what we know of its development in Estonian – we ventured to predict that lability is unlikely to disappear anytime soon from the language. As we have shown, lability did not considerably recede despite the effort of (the otherwise very efficient) language planning to minimize it. Today, the lability system is in complementary aspectual distribution with the anticausative derivation, and each seems to have adapted well to co-existence, making use of aspectual and other semantic differences. This complementarity signals clearly that lability in contemporary Estonian is still semantically motivated.

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VALBU = Valenzwörterbuch deutscher Verben (Studien zur Deutschen Sprache 31). Tübingen: Gunter Narr.


Appendix. Abbreviations