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Transitivity Alternations in North Sámi

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Abstract: In North Sámi, verbs that form transitivity alternation pairs are always distinguished morphologically. However, even if morphology is seen as a reflex of the syntax, the syntactic structure underlying transitive and intransitive verbs in North Sámi cannot be directly read off from the morphology. Since the verbalisers have vocalic phonological realisations with some roots but consonantal realisations with others, and since consonantal realisations give the verb an additional syllable, one can get the impression that in some transitivity alternation pairs the transitive verb is derived from the intransitive verb, whereas in other pairs it is the other way round, and that in still other pairs both verbs are derived from a common base. On closer inspection it nevertheless appears that while in some cases the transitive verb is actually formed from the intransitive verb by causativisation, in other cases the transitive verb differs from its intransitive counterpart only in involving a Voice head. In addition, the language has a type of intransitive verb that are marked anticausatives, meaning that they have an expletive Voice head. The main difference between these verbs and the corresponding transitive verbs is the properties of Voice.

Keywords: causative, marked anticausative, verb phrase syntax, verbaliser, morphology

1 Introduction

The morphological characteristics of verbs involved in the transitivity alternation vary a lot across languages. The term “transitivity alternation” here refers to pairs of semantically closely related verbs, one of which is intransitive and takes an undergoer (theme or patient) argument, while the other is transitive and takes an agent/causer argument as subject and the undergoer argument as object (cf. e.g. Haspelmath 1987, Schäfer 2009). An English example is given in (1).

(1) a. The boat sank.
   b. Verna sank the boat.

In this particular case, the two verbs are morphologically identical. In the terminology proposed in Haspelmath (1987), sink is a labile verb – it can appear in an intransitive syntactic frame or in a transitive one without any change in the morphology. English is however apparently an exceptional language in having many labile verbs (cf. Haspelmath 1993; see also Alexiadou, Anagnostopoulou & Schäfer 2015). In other languages, the two verbs in transitivity alternation pairs are often distinguished morphologically.

In North Sámi, the language that I will focus on in this paper, there are no labile verbs at all. All alternations of argument structure are reflected in the verb forms, although not in the same way for all verb pairs. In some cases, the two verbs that constitute a transitivity alternation pair are built on different roots.

1 I use the term “transitivity alternation” because it does not suggest any particular morphological pattern or any particular derivational relation between the two verbs.
Examples of this are jápmit ‘die’ and goddit ‘kill’ and also buollit ‘burn (intr.) and boaldit ‘burn (tr.)’. In this paper, I will however set pairs like these aside, and look instead at transitivity alternation pairs where the two members are built from the same root but differentiated by the morphology.

Transitivity pairs where both members involve the same root have received quite a lot of attention in the linguistic literature. The proposed analyses fall into three main types. According to analyses of the first type, called “the intransitive base approach” in Schäfer (2009), the transitive members of transitivity pairs are derived from the corresponding intransitive verbs. Analyses of the second type, called “the transitive base approach” in Schäfer (2009), instead take the intransitive members of transitivity pairs to be derived from the transitive verbs, whereas analyses of the third type, called “the common base approach” in Schäfer (2009), both members of a causative alternation pair are always derived from a common base, without one of the verbs being derived from the other.

On the traditional understanding of transitivity alternations in North Sámi, this language has transitivity alternation pairs where the transitive verb is morphologically more marked than the intransitive verb, pairs where the intransitive verb is morphologically more marked than the transitive verb, and pairs where both verbs are marked to the same degree but with different suffixes. Thus, all the morphological patterns that Haspelmath (1987) finds in the world’s languages appear to be represented in North Sámi: causativisation, anticausativisation, and equipollent marking.

However, Vinka (2002) argues that the different morphological patterns found in North Sámi are not connected to different syntactic structures. Rather, he takes all transitive verbs involved in the transitivity alternation to be the result of merging a root with a causative verbaliser, while in the corresponding intransitive verbs the root is merged with a non-causative verbaliser. In other words, he adopts a common base analysis. The variation in morphological complexity is seen as a matter of phonological realisation of the verbalisers: in some pairs the causative verbaliser is spelled out as a suffix on the verb and the non-causative verbaliser is realised as a phonologically null marker, while in other pairs it is the other way round, and there are even pairs where both verbalisers are spelled out as suffixes (see Vinka 2002: 122). Since Vinka’s work deals specifically with North Sámi, it will be an important point of reference for my analysis.

My investigation is based on certain assumptions that I will make clear right from the beginning. I take grammar to involve one single combinatorial system, commonly referred to as “syntax”. Phrases and clauses as well as morphologically complex words are built in this component. That is, my approach is strictly constructional and couched within a tradition that goes back to Hale & Keyser (1993) and includes works such as Borer (1994, 2005), Harley (1995), Marantz (1997), Pylkkänen (2002), Ramchand (2008) and also Alexiadou, Anagnostopoulou & Schäfer (2015). On this approach, the building of argument structure and event structure takes place in the syntax; more precisely, in the lower parts of the verbal projection. However, at the bottom of this projection is not a verb, but instead a root, which becomes verbal after merging with a verbalising element, in the same way as it would become nominal or adjectival if it were to be merged instead with an element that specifies the category as adjectival or nominal (see e.g. Marantz 1997, Pylkkänen 2002, Borer 2005, Embick & Marantz 2008, Harley 2009, Embick 2010).

Concerning the relation between the underlying syntactic structure and the observable surface elements, I assume that the phonological realisations of morphemes are inserted after the structure has been built, as in Distributed Morphology (DM, see e.g. Halle and Marantz 1993, 1994, and later work on DM). I also take the Mirror Principle (Baker 1985) to be descriptively accurate. That is, if a root appears with two or more suffixes (prefixes are almost non-existent in North Sámi) I take the order of suffixes, from the root outwards, to be identical to the order of corresponding syntactic elements, from the root upwards.

It turns out that in North Sámi, the morphological patterns found in transitivity alternation pairs are in some cases potentially misleading. Pairs that appear to involve causativisation are of two different types, one type involving causativisation and one type where the difference between the transitive and the intransitive verb is the presence of a Voice head in the transitive verb. Pairs that appear to involve
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anticausativisation likewise fall into two groups – pairs where the intransitive verb is a plain unaccusative and pairs where it involves an expletive Voice head, as in the analysis of marked anticausatives in Alexiadou, Anagnostopoulou & Schäfer (2015). Finally, for pairs where the two verbs appears to be marked to the same degree we must assume that the transitive verb nevertheless involves a Voice head which is absent in the intransitive verb.

The paper is organised as follows. In section 2 I discuss cases where the relation between the transitive and the intransitive verb in North Sámi transitivity alternation pairs appears to be one of causation. In section 3 I turn to an alternation type where the intransitive verb appears to be derived from the transitive verb, and I conclude that the perceived direction of derivation is an illusion created by the phonological realisations of the verbalisers. Then in section 4 we see the alternation type where the intransitive verb is a marked anticausative, while in section 5 I deal with equipollent marking, i.e. transitivity alternation pairs where both members are marked to the same degree. Section 6 gives an overview of the alternation patterns found in North Sámi, and section 7 concludes the paper.

2 Causativisation

In some North Sámi transitivity alternation pairs the transitive verb appears to be formed from the corresponding intransitive verb by addition of a morphological marker, which then presumably represents a syntactic head that is present in the transitive verb but not in the intransitive verb. In some cases, as in the example in (2), the additional marker seen in the transitive member of the pair is the productive and general causative suffix. The intransitive verb *fierrat* ‘roll’ in (2a) is non-agentive and denotes manner of motion. It contrasts with the causative transitive verb *fierahit* in (2b), which has an additional causative marker *h*- (the citation form of verbs is the infinitive, which includes the infinitive suffix *(i)t*).

(2) a. Biilla fiera-i johkii.
   car.SG.NOM roll-PAST.3SG river.SG.ILL
   ‘The car rolled into the river.’

   b. Son fiera-h-ii stuora geadggi ráiggi ovdii.
   s/he roll-CAUS-PAST.3SG big stone.SG.ACC hole.SG.ACC in.front.of.ILL
   ‘S/he rolled the big stone in front of the whole.’

In this section I will deal with transitivity pairs that show a similar pattern to what we see in (2). Pairs involving the productive causative are addressed in 2.1, while pairs where the transitive verb is marked with the suffix *d*- , which is traditionally also seen as a causative marker, are discussed in 2.2. The topic of 2.3 is the scope of adverbials that combine with causative verbs. In 2.4 I address the interaction between causative and passive. My conclusions are summed up in 2.5.

3 The alternation between -rr- in the infinitive form *fierrat* and -r- in the past tense form *fierai*, and also in the causative *fierahit*, is an example of the so-called consonant gradation which is a pervasive trait of the morphology of North Sámi. It affects consonants at the centre of a prosodic foot, i.e. the coda of the stressed syllable and the onset of the following syllable (see e.g. Sammallahti 1998, Baal, Odden & Rice 2012). I will not go into the details of consonant gradation here, but I assume, with Baal, Odden & Rice (2012), that the gradation is the consequence of a floating mora connected to individual markers, which may or may not also have a segmental realisation (see also Svenonius 2008). We will see numerous other cases of gradation in the examples in this paper.

4 The examples in (2), as well as many other examples in this paper, are taken from the SIKOR, the Sámi corpus developed by UiT The Arctic University of Norway and the Norwegian Saami Parliament. The corpus contains written North Sámi texts of various types, and the total size of the corpus is approximately 21 million words (June 2016). See gtweb.uit.no/korp/. In addition to building on my own (non-native) knowledge of North Sámi, data for this paper have been collected from Kåven et al. (1995), Nickel (1990), and Nielsen (1926, 1932, 1934, 1938), as well as from Sammallahti (2002), which, among other things, contains a very useful backwards dictionary. In addition, the judgements have been checked with native speakers. The forms given are those found in the standard written language.
2.1 Productive causatives

In (2) above we saw a North Sámi transitivity alternation pair where the intransitive verb is a non-agentive manner-of-motion verb while the transitive verb carries the productive causative marker $h$-. Some more similar pairs are given in (3):

<table>
<thead>
<tr>
<th>Intransitive verb</th>
<th>Transitive verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. cirgut ‘spurt (intr.)’</td>
<td>cirgguhit ‘spurt (tr.)’</td>
</tr>
<tr>
<td>b. gahččat ‘fall’</td>
<td>gahčahit ‘cause to fall, let fall’</td>
</tr>
<tr>
<td>c. goaikut ‘drip (intr.)’</td>
<td>goaikkuhit ‘drip (tr.)’</td>
</tr>
<tr>
<td>d. jorrat ‘rotate (intr.)’</td>
<td>jorahit ‘rotate (tr.)’</td>
</tr>
<tr>
<td>e. riššut ‘splash (intr.)’</td>
<td>rišuhit ‘splash (tr.)’</td>
</tr>
</tbody>
</table>

North Sámi causatives of the type shown here, which are based on unaccusative intransitive verbs, are traditionally referred to as “lexical causatives”. Vinka (2002) also adopts this term, and he takes them to have the same syntactic structure as morphologically simplex transitive verbs. On his analysis, these verbs are made up of a root, a causative verbaliser, and a Voice head that introduces the external argument in its Spec, as sketched in (4).

According to Vinka, the causative marker $h$- appears as the realisation of the verbaliser here because no other vocabulary item is specified as the realisation of the verbaliser in the context of the roots in question. Since the verbaliser has a [caus] feature, according to his analysis, the general causative marker is chosen. Note, however, that the intransitive verbs in (3) have a theme vowel which is retained in the corresponding transitive verbs. As will be made clearer in the next subsection, I think there is good reason to take these theme vowels to be the phonological realisations of verbalisers. Hence, the causative marker cannot also be the phonological realisation of the verbaliser.

More transitivity pairs involving the productive causative are shown in (5). The intransitive verbs here are change-of-state verbs, and the causative is represented by its allomorph $aht$-:

<table>
<thead>
<tr>
<th>Intransitive verb</th>
<th>Transitive verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. čáhpodit ‘become black’</td>
<td>čáhpodahttit ‘blacken’</td>
</tr>
<tr>
<td>b. jaskkodit ‘become calm, quiet’</td>
<td>jaskkodahttit ‘silence’</td>
</tr>
<tr>
<td>c. ealáskit ‘come to life’</td>
<td>ealáškahttit ‘enliven, revitalise’</td>
</tr>
<tr>
<td>d. giervrasmit ‘become strong(er)’</td>
<td>giervrasmahttit ‘strengthen’</td>
</tr>
<tr>
<td>e. nuorasmit ‘become young(er)’</td>
<td>nuorasmahttit ‘make young(er)’</td>
</tr>
</tbody>
</table>

Non-agentive motion verbs and change-of-state verbs are verb types that commonly take part in transitivity alternations (cf. Levin & Rappaport Hovav 1995, Schäfer 2009), and we see now that North Sámi has both types.

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5 The Voice head was originally proposed by Kratzer (1996). The separation of Voice and Caus was proposed by Pylkkänen (1999), and it has also been argued for e.g. in Kratzer (2005), Harley (2013), Alexiadou, Anagnostopoulou & Schäfer (2006, 2015).
The distribution of the causative allomorphs $h$- and $ahtt$- is conditioned by the phonology, such that $h$- follows vowels while $ahtt$- follows consonants. This is in accordance with recent proposals that vocabulary items may be sensitive to the phonological properties of items that are located inside them, or, in other words, that represent more deeply embedded constituents (see e.g. Bobaljik 2000, Embick 2010, Arregi & Nevis 2013).

The intransitive verbs in (5) clearly contain a phonological realisation of the verbaliser. We see this if we compare the verbs to the corresponding adjectives, as in (6).

(6) **Adjective** | **Intransitive verb**
---|---
a. čáhppat ‘black’ | čáhpodit ‘become black’
b. jaskat ‘calm, quiet’ | jaskkodit ‘become calm, quiet’
c. ealli ‘alive, vital’ | ealáskit ‘come to life’
d. gievra ‘strong’ | gievrasmit ‘become strong(er)’
e. nuorra ‘young’ | nuorasmít ‘become young(er)’

In each pair, the verb contains a morpheme that is not present in the corresponding adjective. I take this morpheme to be the phonological realisation of the verbaliser $v$. In (6a) and (6b) the verbaliser is $d$, in (6c) it is $sk$, and in (6d) and (6e) it is $sm$. The choice of phonological realisation of $v$ is in each case conditioned by the root. Since the root syllable always has a consonant or consonant group as coda (see Sammallahti 1998, Baal, Odden & Rice 2012), adding a consonantal realisation of the verbaliser requires insertion of a vowel between the root and the verbaliser. This vowel could be seen as a part of the realisation of the verbaliser or as purely epenthetic – a question that I will leave open here.

The verbaliser in the change-of-state verbs in (5) could be characterised as $v$become, if we assume, following Harley (1995), Arad (1999), Embick (2004), Folli & Harley (2005, 2007), and also Vinka (2002), that there are several types of non-stative verbalisers. The observed patterns are however also compatible with the analysis proposed in Alexiadou, Anagnostopoulou & Schäfer (2015), where all non-stative intransitive verbs are taken to involve a verbaliser that is not specified beyond being processual, so that the change-of-state reading arises when this verbaliser combines with a root that denotes the resulting state.

The claim put forward by Alexiadou, Anagnostopoulou & Schäfer (2015) that the transitive members of transitivity alternation pairs differ from their intransitive counterparts only in having a Voice head on top of the verbaliser is however not supported by the North Sámi examples seen above. The fact that the two allomorphs of the general causative marker, $h$- and $ahtt$-, appear in many transitive members of transitivity alternation pairs, and, moreover, that the causative markers then is added outside the marker that spells out the verbaliser, strongly suggests that these verbs pairs involve a causative head which is separate from the verbaliser. The $h$- seen in fierahtit and in many other transitive verbs and also the $ahtt$ in e.g. čáhpodahttit are not general realisations of Voice heads, i.e., of heads that introduce external arguments. They only appear in verbs that are traditionally seen as causatives.

Below we see some examples where the causative markers spell out Caus heads that have unergative and transitive structures as complements. In (7) the input to causativisation is the unergative viehkat ‘run’, while in (8) it is the transitive verb doallat ‘hold’. In both cases the causative marker is $h$. In (9) I show that the causative $ahtt$- can also embed transitive verbs, exemplified here by jorgalit ‘translate’.

(7) Biret viega-h-ii Máhte.
Biret.NOM run-CAUS-PAST.3SG Máhtte.ACC
‘Biret made Máhtte run.’

In the varieties of North Sámi spoken in Norway, the causee is marked with illative, as in (8), if it is the external argument of a transitive verb and the higher subject, the causer, is an agent. If the higher subject is a non-agentive cause, the causee gets accusative (see e.g. Nielsen 1926: 329). In the variety of North Sámi that Vinka (2002) discusses, the Torne dialect spoken in the north of Sweden, both arguments of the base verb are always marked with accusative in causatives.

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These causatives, where the input to causativisation is a verb that already has an external agent argument, are commonly referred to as "syntactic" causatives (see e.g. Vinka 2002: 19). In the causatives shown in (3) and (5) above the input to causativisation is arguably an unaccusative vP. This does not mean, however, that the causative elements themselves are of different types. If the causative markers in (3) and (5) were to be seen as realisations of Voice head, a number of additional restrictions would be necessary in order to account for their distribution. I will therefore conclude instead that they spell out Caus heads, and that the transitive members of the transitivity pairs shown above involve the syntactic structure shown in (10):

Here the complement of Caus is an unaccusative vP, that is, a structure made up of a root, a processual verbaliser v and an internal argument. Above Caus is a Voice head, which introduces the external argument in its Spec. I also indicate that the causative marker spells out the Caus head.

2.2 Transitive verbs marked with d-

North Sámi has transitivity pairs of another type which also is traditionally taken to involve causativisation (see e.g. Nielsen 1926, Nickel 1990). In these pairs, the intransitive verb denotes change of state, and the transitive verb has a suffixed d- which is not present in the intransitive verb. Some examples are shown in (11). As indicated in the translations, the verbs in (11) are ambiguous between an atelic processual reading and a telic reading, i.e., a degree achievement reading. The resolution of this ambiguity is arguably dependent on the context. For example, whether ‘become big’ or ‘become bigger’ is the more appropriate translation of stuoqrt in a given context, depends on the size of the subject, relative to some scale, before the change took place. Hence, I follow Hay, Kennedy & Levin (1999) and take the telic reading of change-of-state verbs like these to arise when the change that the subject undergoes is interpreted as bounded, whereas the atelic reading arises when the change is interpreted as unbounded.
Intransitive verb  Transitive verb

<table>
<thead>
<tr>
<th>Intransitive verb</th>
<th>Transitive verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. divrut ‘become (more) expensive’</td>
<td>divrudit ‘cause to become (more) expensive’</td>
</tr>
<tr>
<td>b. guhkkut ‘become long(er)’</td>
<td>guhkkudit ‘cause to become long(er), lengthen’</td>
</tr>
<tr>
<td>c. lossat ‘become heavy/heavier’</td>
<td>lossudit ‘cause to become heavy/heavier’.</td>
</tr>
<tr>
<td>d. stuorrut ‘become big(ger)’</td>
<td>stuorrudit ‘cause to become big(ger)’</td>
</tr>
<tr>
<td>e. dipmat ‘become soft’</td>
<td>dipmadit ‘cause to become soft’</td>
</tr>
<tr>
<td>f. goikat ‘dry, become dry’</td>
<td>goikadit ‘dry, cause to become dry’</td>
</tr>
<tr>
<td>g. duhtat ‘become satisfied’</td>
<td>duhtadit ‘cause to become satisfied, satisfy’</td>
</tr>
</tbody>
</table>

In the analysis of Vinka (2002) the structural difference between an intransitive verb like divrut ‘become (more) expensive’ and the corresponding transitive verb divrudit ‘cause to become (more) expensive’ is that divrudit involves a Voice head which is missing in divrut ‘become (more) expensive’. But crucially, Vinka does not take the suffixed -d- found in the transitive verbs to be the phonological realisation of Voice. Instead, he takes the causative d- to be the realisation of a causative verbaliser, which contrasts with a phonologically empty non-causative verbaliser in the intransitive verb.

A closer look at the morphology of intransitive verbs like divrut reveals, however, that contrary to what Vinka (2002) assumes, the verbaliser in these verbs is not phonologically empty. Rather, the theme vowel, which is u- in divrut, is the phonological realisation of the verbaliser. We see this if we compare the verb divrut ‘become (more) expensive’ to the adjective meaning ‘expensive’. Like all other North Sámi adjectives, this adjective has an invariant attributive form, whereas it is marked for number and case when it appears in predicative position. In (12), we see the attributive form divrass:

(12) Dat lea stuora ja divrass prošeakta.
nom is big.attr and expensive.attr project.sg.nom
‘It is a big and expensive project.’

The theme vowel -u- seen in the verb divrut ‘become (more) expensive’ is not found in any form of the adjective divrass ‘expensive’. Hence, it is not part of the root. Nor is it an inflectional marker, since in the infinitive divrut only the final -t represents infinitive. We must conclude that the u- represents the verbaliser.9

Many other North Sámi intransitive change-of-state verbs related to adjectives also have u- as the phonological realisation of the verbaliser. Some examples are shown in (13):

(13) Adjective  Intransitive verb

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Intransitive verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. divrass ‘expensive’</td>
<td>divrut ‘become (more) expensive’</td>
</tr>
<tr>
<td>b. guhkk ‘long’</td>
<td>guhkkut ‘become long(er)’</td>
</tr>
<tr>
<td>c. lossat ‘heavy’</td>
<td>lossat ‘get heavy/heavier’</td>
</tr>
<tr>
<td>d. jalla ‘stupid’</td>
<td>jallut ‘become (more) stupid’</td>
</tr>
<tr>
<td>e. stuoris ‘big’</td>
<td>stuorrut ‘become big(ger)’</td>
</tr>
</tbody>
</table>

In some intransitive change-of-state verbs the verbaliser is spelled out as a-, as in the examples in (14), where I again show the verbs together with the corresponding adjectives:

(14) Adjective  Intransitive verb

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Intransitive verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. dimis ‘soft’</td>
<td>dipmat ‘become soft’</td>
</tr>
<tr>
<td>b. goikkis ‘dry’</td>
<td>goikat ‘become dry’</td>
</tr>
<tr>
<td>c. duhtavaš ‘satisfied’</td>
<td>duhtat ‘become satisfied’</td>
</tr>
</tbody>
</table>

9 The analysis of North Sámi theme vowels as realisations of verbalisers (and nominalisers) is discussed in more detail in Julien (2015). Pylkkänen (2002: 94) draws the same conclusion for Finnish on the basis of the observation that the final vowel in Finnish verbs and nouns varies with the category. A related but nevertheless different analysis of theme vowels is found in Oltra-Massuet (2000) and Oltra-Massuet & Arregi (2005). On this analysis, which is based on Catalan and Spanish, theme vowels are not exponents of v heads, but instead phonological realisations of nodes that are added, in the morphology, to v as well as to other functional heads.
The theme vowels *a-* and *u-* are also found in intransitive verbs that do not denote any change of state, such as *bargat* 'work', *jurrat* 'hum', *suhkat* 'row', *bárgut* 'scream', *cingut* 'spurt', and *orrut* 'live, stay', as well as in transitive verbs, such as *borrat* 'eat', *lohkat* 'read', *oahpat* 'learn, dáhtut* 'want', *goarrut* 'sow', *neavvut* 'advise', and even in stative verbs, e.g. *ballat* 'fear' and *goallut* 'feel cold'. I take all theme vowels found in verbs to be the phonological realisation of verbalisers. They are never part of the root. Hence, the theme vowels in the motion verbs shown in 2.1 also represent the verbaliser. The fact that the verbaliser can get the same phonological realisation in verbs of different types must mean that there are vocabulary items that spell out *v* irrespective of which other features the *v* carries. The spellout of the verbaliser is instead conditioned by the root, as mentioned above.

If we now go back to the transitive verbs in (11), we see that they all have a vocalic verbaliser in front of the suffixed *d-*. This means that *d-* is not the phonological realisation of the verbaliser. The question is then whether the *d-* marker represents a Caus head which is separate from the verbaliser, so that these verbs have the same structure as transitive verbs formed with the productive causative, the structure shown in (10) above and repeated here as (15), or whether it is instead the realisation of Voice, in which case transitives with *d-* might have the simpler structure shown in (16).

(15)

```
DP  Voice
   Caus -d- DP  v  v
```

(16)

```
DP  Voice -d- DP  v  v
```

The causative marker *-d-* only appears in transitive verbs formed from change-of-state verbs (Nielsen 1926: 240). It never appears in causatives formed from transitive or unergative verbs. Thus, the complement of *d-* never contains a Voice head. This could be taken to mean that the *d-* itself is in fact the realisation of Voice, and that (16) is the correct structure for causatives with *d-. More precisely, *d-* could be specified as the realisation of a Voice head that has a change-of-state verbal complement, with the added requirement that the verbaliser does not have a consonantal realisation.

Certain complications related to the distribution of the *d-* marker must however be taken into consideration. In some North Sámi causative verbs with this marker, verbs that are related to adjectives and semantically involve a change of state, we do not see the phonological realisation of the verbaliser which is found in the corresponding intransitive verb. These causatives exist alongside causatives that appear to be built from the corresponding intransitive verb. For example, in addition to the causative *stuorrudit* 'cause to become heavy', which was shown above, there is also the causative *stuoridit*. In (17) I show both verbs, together with the intransitive verb based on the same root. The translations are taken from Nielsen (1938), which is the most comprehensive dictionary of North Sámi to this day, based on extensive field work.
We see that according to Nielsen, *stuorrudit* suggests that the causation is indirect while *stuoridit* implies more direct causation. In today’s North Sámi, this distinction might be less clear for many speakers, but both verbs forms are nevertheless still in use.¹⁰

The question is how *stuoridit* ‘enlarge’ should be analysed. We see here only one morphological marker between the root and the infinitival ending -it, namely, the suffixed d-. Hence, d- could in fact represent the verbaliser in *stuoridit* and in similar verbs. However, since this is not a possible analysis for the d- marker in verbs where the verbaliser is visible inside d-, I will tentatively assume that the “causative” d- always spells out a Voice head. It follows that the verbaliser is phonologically zero in verbs like *stuoridit*. The more direct causation associated with *stuoridit* could then be connected to the fact that the phonological form of this verb does not contain the corresponding intransitive verb, so that the intransitive verb is not evoked, while the intransitive verb is present in the phonological form of *stuorrudit*.

### 2.3 Causatives and adverbials

Returning now to the transitive verbs formed with the productive causative marker and claimed above to involve both a verbaliser and a causative head, one might expect that it should be possible to add adverbials that modify the event represented by the complement of Caus. For example, Pylkkänen (2002: 106) shows that Finnish causatives allow non-agentive (but not agentive) modification of the caused event. In (18), the adverb *kauniisti* ‘beautifully’ can be interpreted as a characterisation of the singing of the choir, and not necessarily of the teacher’s actions.

(18) **Opettaja laula-tti kuoro-a kauniisti.**

    teacher sing-caus choir-par beautifully

‘The teacher made the choir sing beautifully.’

Pylkkänen’s conclusion is that the Finnish causative is verb-selecting, which means that the complement of Caus is a verbal projection, not just a root.

In English zero causatives, by contrast, adverbials cannot take scope below the Caus element. Pylkkänen (2002) points to constructions like (19), where the adverbial *grumpily* can only modify the causing event, not the caused event – that is, it can only mean that John is grumpy, not Bill.

(19) **John awoke Bill grumpily.**

Pylkkänen’s conclusion is that the causative *awake* is built from a root and not from the intransitive verb *awake*, and, more generally, that the English zero causative attaches to bare roots.

Concerning North Sámi, the evidence from adverbials is however not decisive on this point. In most cases, adverbs that combine with causative verbs would be taken to modify the whole causative verb, or alternatively the embedded result state. They do not easily modify the verbal complement of Caus. In (20), the adverb *fas* ‘again’ modifies only the result state implied by the causative verb, yielding a restitutive reading, while in (21), the adverb *johtilit* ‘quickly’ takes scope over the whole causative verb (although in reality, if the revitalisation was quick, then the Sámi language also got more vital quickly).

¹⁰ Other similar verb pairs are e.g. *guhhkudit* ‘cause to become long(er)’ and *guhkkidit* ‘lengthen’, *lossudit* ‘cause to be heavy/heavier’ and *losidit* ‘make heavier’, *hálbudit* ‘cause to become cheaper’ and *hálbbedit* ‘reduce the price (of)’ (translations from Nielsen 1934).
Transitivity Alternations in North Sámi

(20) Skuvla galgá lea-t melde ealá-sk-aht-it fas school.sg.nom shall.prs.3sg be-inf with live-v-caus-inf again sámé-giela dáruid-uvvo-n guovllu-in. Sámi-language.sg.acc Norwegianise-pass.ptc area-pl.loc ‘The school will help revitalise the Sámi language again in (the) Norwegianised areas.’

(21) Bargu sámé-giel-at beaive-ruovtu-s ealá-sk-aht-ii work.sg.nom Sámi-language-adj day-home-sg.loc live-v-caus-past.3sg johtilit mu sámé-giela. quickly my Sámi-language.sg.acc ‘Work in a Sámi speaking revitalised my Sámi quickly.’

The causative in these examples are based on the intransitive change-of-state verb ealaskit ‘come to life’, which means that no matter how one sees it the complement of the causative element is structurally relatively small (it does not, for example, contain an external argument). But notably, adverbials scope over the causative also when the base verb of the causative is a transitive verb, so that the complement of Caus contains several verbal heads. In (22), we have the causative verb borahit ‘feed’, which is based on the transitive verb borrat ‘eat’, and in (23), we have the causative verb oahpahit ‘teach’ which is based on the transitive verb oahppat ‘learn’. In both cases the adverbial modifies the causative verb and not just the caused event.

(22) Lea boastut bora-h-it bohccuid beare haga. is wrong eat-caus-inf reindeer.pl.acc too much ‘It is wrong to feed the reindeer too much.’

(23) Vuodjin-skuvllat mat leat húlbbit hárve oahpa-h-it driving-school.pl.nom which are very cheap.pl.nom rarely learn-caus-prs.3pl ohppiit abmá làdje. pupils.pl.acc properly ‘Driving schools which are very cheap rarely teach their pupils properly.’

On this background, it comes as no surprise that the adverb mealgat ‘a lot’ in (24) likewise takes scope over the causative divrudit ‘make more expensive’. As noted above, it is possible that transitive verbs marked with -d- (glossed here as TR for transitive) contain just two verbal heads: the verbaliser and the Voice head. There is then just one event that adverbials can modify if they do not modify the root.

(24) Rievdadusat divr-u-d-it biepmu mealgat. change.pl.nom expensive-v-tr-prs.3pl food.sg.acc immensely ‘The changes make food more expensive immensely.’

Hence, it turns out that adverbials do not necessarily provide evidence for the presence of embedded events in North Sámi causatives.

There can however be aspectual marking inside the causative, as in (25), where the causative orustahttit ‘stop’ is formed from orustit ‘stop’, which in its turn is an inceptive formed from the stative verb orrut ‘stay, live’.

(25) Sii ferte-jit oru-st-ahtt-it plána-id. they must-prs.3pl stay-inc-caus-inf plan-pl.acc ‘They must stop the plans.’
This shows that causatives in North Sámi can have complements that contain verbal heads. The inability of adverbials to take scope below Caus then cannot generally be due to absence of verbal structure below Caus. The real reason will have to be investigated.

2.4 A note on passive

In order to get a more complete picture of the North Sámi causatives discussed above, it is also necessary to consider the passive. Passive in North Sámi is marked by the suffix \( (j)uvvo \), which is invariant except for some details that are conditioned by the phonology.\(^{11}\) Tense and agreement markers are added outside the passive marker, as shown in (26), where the passive of the verb čállit ‘write’ appears in the past tense third person plural.

(26) \textit{Dalle čálllo-juvvo-jedje boadus-listtu-t giedai-guin.}
then write-PASS-PAST.3PL result-list.PL.NOM hand-PL.COM
‘Then (the) result lists were written by hand.’

Not only transitive verbs but also unergative verbs can be passivised. In (27) we have the passive of the unergative verb čuigoat ‘ski’:

(27) \textit{Gaskavahku čuigo-juvvo guhkes-čuoigan.}
Wednesday_.GEN ski-PASS.PRS.3SG long-skiing
‘On Wednesday there is long distance skiing.’

In other words, verbs that have external arguments can be passivised in North Sámi. This fact suggests that passive is connected to Voice, the head that introduces the external argument.

But notably, when a verb containing a causative marker is passivised, the passive marker is attached outside the causative marker. This is illustrated in (28), where I show the passive form of the causative verb ealáshahttit ‘enliven, revitalise’:

(28) \textit{Almmolaš politihkka lei ahte ira-giella galgá ealá-sk-ahtt-ojuvvo-t.}
official policy.NOM was that Irish-language.NOM shall life-V-CAUS-PASS-INF
‘The official policy was that the Irish language should be revitalised.’

The same is true of transitive verbs formed with the marker \( d- \). In (29), we see that in the passive of stuorrudit ‘cause to become big(ger)’ the passive suffix \( uvvu \) is added outside the causative marker \( d- \):

(29) \textit{Doarjja stuorr-u-d-uvvu-i vida-in miljovnna ruvmu-in.}
support.SG.NOM big-V-TR-PASS-PAST.3SG five-SG.COM million crown-SG.COM
‘The support was increased by 5 million crowns.’

We must conclude that the passive marker represents a syntactic head that is higher than the head spelled out as the productive causative and also higher than the transitive marker \( d- \). If the latter represents a Voice head, as I have suggested, then the passive cannot also be encoded in the Voice head, as has been widely assumed since Kratzer’s (1996) postulation of the Voice head (see e.g. Pylkkänen 2002, Harley 2013). The morphology of \( stuorruduvvot \) ‘be made bigger’ is however compatible with the proposal in Bruening (2012) that passive is not encoded in the Voice head, but instead in a head that takes VoiceP as its complement (a similar proposal, but using different terms, is found in Collins 2005).

\(^{11}\) Derived verbs with the theme vowel \( o- \) are also traditionally considered to be passives. However, this is not necessarily the right analysis for all of them. For example, \textit{haksit} is transitive and means ‘smell’, and the corresponding long passive \textit{haksojuv-vot} means ‘be smelled’, while the shorter \textit{haksot} is the intransitive ‘smell’.

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This approach to passive is also adopted by Alexiadou, Anagnostopoulou & Schäfer (2015: 123), who suggest that passives that are morphologically unique are also structurally unique. The background of this suggestion is the fact that in many languages passive morphology is found in verb forms that are not semantically passive, but instead e.g. anticausative or reflexive (see Haspelmath 1990). In these cases, Alexiadou, Anagnostopoulou & Schäfer take the relevant morphology to reside in the Voice head. But for languages where passive morphology does not show this kind of syncretism, they propose that the passive marking represents a Passive head which selects VoiceP.

In North Sámi, passive morphology only appears in verbs that are semantically passive. Hence, the passive is morphologically unique. On an analysis along the lines of Alexiadou, Anagnostopoulou & Schäfer (2015) it would therefore be seen as the spellout of a Passive head located above VoiceP. More specifically, following Bruening (2012), the Pass head selects a projection of Voice that has not yet projected its external argument. Consequently, Voice has an unchecked selectional feature, and this feature is checked by Pass, which then also existentially binds the external argument. The passive ealáškahttojuvvot ‘be enlivened, be revitalised’ then involves the structure shown in (30), with the verbaliser spelled out as sk, the causative head spelled out as ahtt- and the Pass head spelled out as juvvo-. The Voice head has no phonological realisation.

\[
\text{(30)}
\]

The passive verb stuorruduvvot ‘be made bigger’ might then be taken to involve the structure shown in (31), with the verbaliser spelled out as u-, the Voice head spelled out as d- and Pass spelled out as uvvo-.

\[
\text{(31)}
\]

2.5 Conclusions

We have seen in this section that in some transitivity pairs in North Sámi the transitive verb is formed from the corresponding intransitive verb by causativisation, so that the transitive verb syntactically and morphologically contains the intransitive verb. This is clearly true of pairs that involve the productive causative. In these cases the intransitive member of the pair is either a motion verb or a change-of-state verb with a consonantal realisation of the verbaliser. Some transitive verbs with the suffix d-, traditionally
seen as a causative marker, also contain the corresponding intransitive verb. However, the d- marker could be taken to represent the Voice head. It is found in transitive change-of-state verbs where the verbaliser is realised as a vowel or as zero.

Importantly, I do not agree with Vinka (2002) that the morphological difference between an intransitive verb like divrut ‘become (more) expensive’ and the corresponding transitive verb divrudit ‘cause to become (more) expensive’ is an opposition between a phonologically null verbaliser and a verbaliser spelled out as d-. On my view, the intransitive divrut also contains a realisation of the verbaliser, namely, the thematic vowel u-.

Concerning the North Sámi passive, I have noted that the passive morphology invariably goes with passive semantics. Hence, the North Sámi passive fits the description given by Alexiadou, Anagnostopoulou & Schäfer (2015) of passives that select VoiceP as their complement.

### 3 Apparent anticausatives

We will now turn to North Sámi transitivity alternation pairs of the type shown in (32). Here the intransitive verb is apparently morphologically more marked than the transitive verb. In (32a) we have the transitive cuovkut ‘crush, break’, while in (32b) we have the intransitive cuovkanit, which contains a suffix -n- not found in cuovkut.¹²

(32) a. Suollagat cuvk-o lásiid.
   thief.pl.nom break-past.3pl window.pl.acc
   ‘The thieves broke the windows.’

   b. Láset cuovka-n-edje.
   window.pl.nom break-intr-past.3pl
   ‘The windows broke.’

The suffix -n- in (32b) appears to be what in the terminology of Haspelmath (1987) is called an anticausative marker, that is, an element that marks the intransitive member of a transitivity alternation pair. However, in order not to jump to conclusions about the function of n-, I gloss it simply as intr, for “intransitive”.

Some more North Sámi transitivity pairs that exhibit the same pattern as the pair in (32) are shown in (33):

(33) **INTRANSITIVE VERB**                        **TRANSITIVE VERB**
   a. cuovkanit ‘break, become broken’         cuovkut ‘break’
   b. čavgánit ‘tighten, become tight’        čavgat ‘tighten’
   c. coahkkat ‘gather close together’         cohkket ‘collect, gather’
   d. gárvánit ‘become finished’              gárvet ‘finish’
   e. guorranit ‘become empty’                gurret ‘empty’
   f. liegganit ‘become warm’                 ligget ‘warm’
   g. luovvanit ‘loosen, get loose’           luvvet ‘loosen, undo’
   h. seahkanit ‘get mixed’                   sehkket ‘mix up’

In all these pairs the intransitive verb has a suffixed n-, whereas the transitive verb only has a theme vowel between the root and the infinitive marker.

Nielsen (1926: 253) does not however see verbs like cuovkanit as primarily related to their transitive counterparts. Instead, he relates them to adjectival or nominal derivational bases, which in the case of cuovkanit ‘break’ is the adjective cuovkkas ‘broken’, and he refers to them as translative verbs. The same classification is found e.g. in Nickel (1990).

¹² The two verbs belong to different conjugation classes and thus take different tense and agreement markers. Also note that the vowel a- that precedes the suffixed n- in cuovkanedje is conditioned by the n-, and it could be seen as epentthetic or as part of the suffix.
It is true that intransitive verbs in \( n-\) are as a rule related to roots that also appear in adjectival or nominal contexts, as shown in (34) for the verbs in (33):

(34) Adjective/Noun  
<table>
<thead>
<tr>
<th>Intransitive Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. cuovkkas, ‘broken’ cuovkanit ‘break, become broken’</td>
</tr>
<tr>
<td>b. čavgat, ‘tight’ čavgánit ‘tighten, become tight’</td>
</tr>
<tr>
<td>c. gárvvis, ‘ready, finished’ gárvánit ‘get finished’</td>
</tr>
<tr>
<td>d. guorus, ‘empty’ guorranit ‘become empty’</td>
</tr>
<tr>
<td>e. liekkas, ‘warm’ liegganit ‘become warm’</td>
</tr>
<tr>
<td>f. luovus, ‘loose’ luovvanit ‘loosen, get loose’</td>
</tr>
<tr>
<td>g. seahki, ‘mix’ seahkanit ‘get mixed’</td>
</tr>
</tbody>
</table>

However, given the relations shown in (34), we could say that the adjectives or nouns are built from the same roots as the verbs, and the question of direction of derivation becomes irrelevant.

At the same time, the relations in (34) suggest that the intransitive verbs here are ordinary intransitive change-of-state verbs, similar to the change-of-state verbs we saw in the preceding section. This means that they contain the syntactic structure shown in (35), with a root, a verbaliser, and an argument in Spec,\( vP \), and with the verbaliser spelled out as \( n-\).

(35) In other words, these verbs are plain unaccusatives. Alexiadou, Anagnostopoulou & Schäfer (2015) refer to unaccusative verbs that take part in the transitivity alternation as “anticausatives”, but importantly, this does not mean that these intransitive verbs are formed from transitive verbs. There is no claim that there is an operation, in North Sámi or in other languages, that takes transitive verbs as input and returns intransitive verbs.

The structure shown in (35) is arguably found also in the intransitive change-of-state verbs shown in section 2. In all these verbs, the realisation of the verbaliser is conditioned by the root. What is special about the verbs with \( n-\) under discussion here, is that many of them have corresponding transitive verbs which have a theme vowel but no other morphological marking inside the inflection, so that the transitive verb appears to be morphologically smaller than the intransitive verb. By comparison, the intransitive verbs shown in (6), which also have a consonantal realisation of the verbaliser, do not correspond to short transitive verbs, but can be made transitive only by means of the productive causative, as shown in (5).

What is then the syntactic structure of a transitive verb like cuovkut ‘break’? There is no indication that it is anything but an ordinary transitive verb, involving a verbaliser and a Voice head, and with the internal argument as the specifier of \( vP \) and the external argument as the specifier of Voice\( P \), as shown in (36):

(36)
In this configuration, the verbaliser is spelled out as \( u \). This is conditioned by the root in combination with the Voice head. Using the formalism of Distributed Morphology this vocabulary item can be specified as in (37):

(37) \( v \leftrightarrow /u/ / [V \text{voice}]__\{\text{\textasciitilde{c}uovk}, \ldots\} \)

On the analysis just sketched, the only structural difference between the two verbs in each of the pairs in (32) is the presence or absence of Voice. The reason why an intransitive verb like \textit{cuv\textacutedu}kanit} ‘break’ appears to be more marked than a transitive verb like \textit{cuv\textacutedu}kvut} ‘break’ (and also more marked than intransitive verbs like \textit{loss\textacutedu}t} ‘get heavy’), is simply that the consonantal realisation of the intransitive verbaliser in \textit{cuv\textacutedu}kanit} makes the verb appear more complex than the transitive \textit{cuv\textacutedu}kvut}, which has a vocalic realisation of the verbaliser. Thus, I agree with Vinka (2002) that the difference is mainly phonological, although I do not agree that the verbaliser is phonologically null in verbs like \textit{cuv\textacutedu}kvut}.

The traditional grammars have not recognised transitivity pairs like those in (33), however. I think one reason for this is that theme vowels are traditionally not seen as meaningful morphemes in North Sámi, and consequently, verbs with a vocalic realisation of the verbaliser have not been considered suffixed. Another reason is that quite a few verbs in -n- do not have lexicalised transitive counterparts. This means that no vocabulary item is specified as the phonological realisation of a verbaliser located between the root in question and a Voice head, although the verbaliser is spelled out as n- when the Voice head is absent. Some examples are given in (38):

(38) Adjective/noun Intransitive verb  
\( \begin{align*} 
\text{a. badjel} & \text{ ‘above, over’} & \text{badjánit} & \text{ ‘rise, rise up, get up’} \\
\text{b. bohtas} & \text{ ‘swollen’} & \text{bohtanit} & \text{ ‘swell’} \\
\text{c. dâppe} & \text{ ‘here’} & \text{dâbbánit} & \text{ ‘come nearer here’} \\
\text{d. g\textacutedu}vcci & \text{ ‘eight’} & \text{gâkcánit} & \text{ ‘separate into eight parts’} \\
\text{e. vearrá} & \text{ ‘bad’} & \text{vearránit} & \text{ ‘get worse, deteriorate’} \\
\text{f. reak\textacutedu}či} & \text{ ‘dent’} & \text{reakčanit} & \text{ ‘get dents (e.g. of a car)’} \\
\end{align*} \)

The intransitive verbs in (38) can however be causativised by means of the productive causative, as shown in (39) for \textit{badjánit} ‘rise up’, in (40) for \textit{bohtanit} ‘swell’, and in (41) for \textit{vearránit} ‘get worse, deteriorate’:

(39) \text{Guovllu erenoamåš dilli badjá-n-ahtt-á gâzâldaga.} \\
\text{district.sg.gen special situation.sg.nom rise-v-caus-prs.3sg question.sg.acc} \\
\text{‘The district’s special situation gives rise to a question.’} \\

(40) \text{Ladas-vuolâš bohta-n-ahtt-á laddas-iid.} \\
\text{joint-inflammation.sg.nom swell-v-caus-prs.3sg joint-pl.acc} \\
\text{‘Arthritis causes the joints to swell.’} \\

(41) \text{Dat vearrá-n-ahtt-á ain eambbo gieldda-ekonomiija.} \\
\text{that bad-v-caus-prs.3sg even more council-economy.sg.acc} \\
\text{‘That aggravates the council’s economy even more.’} \\

At this point I would like to add some comments to the claim in Vinka (2002: 76) that unaccusative verbs in North Sámi cannot be causativised, and that the base verb of a causative must as a rule be agentive. For Vinka, the causative counterparts of unaccusative verbs are formed by adding a causative verbaliser to the root. There is thus no causativisation taking the unaccusative verb as input. He further observes that a
causative cannot normally be added, for example, to the unaccusative cuovkanit ‘break’. This is shown in (42):\textsuperscript{13}

\[ (42) ^* \text{Mon cuovka-n-aht-en láse.} \]
\[ \text{I break-VCAUS-PAST.1SG window.SG.ACC} \]
\[ \text{Intended meaning: ‘I caused the window to break.’} \]

In disagreement with Vinka’s claim, I have already argued that some North Sámi verbs formed with the productive causative are actually built on unaccusative verbs. Hence, the generalisation that the causative cannot take a non-agentive verb as complement simply does not hold. I believe that the reason why the causative verb in (42) is not well-formed is that the structure underlying cuovkanahttit ‘cause to break’ would instead be spelled out as cuovkut – see (33a). Hence, this is an instance of what is traditionally called blocking (but see Embick & Marantz 2008).

Summing up, this section has dealt with transitivity pairs where the intransitive verb is marked with an \textit{n}- while the transitive verb is only marked with a theme vowel. We have seen that although these pairs might appear to involve an operation of anticausativisation, the verbs involved are, from a structural point of view, ordinary transitive and intransitive verbs.

4 Marked anticausatives

We will now turn to North Sámi transitivity alternation pairs where the transitive member has vocalic marking while the intransitive member has a suffixed \textit{-s-}, as in the examples given in (43).

\[(43) \begin{array}{ll}
\text{INTRANSITIVE VERB} & \text{TRANSITIVE VERB} \\
a. & \text{boalbasit ‘fasten on to sth’} \\
b. & \text{botnjasit ‘twist, turn by chance’} \\
c. & \text{buddosit ‘accidentally become closed up’} \\
d. & \text{čoavdāsit ‘loosen, become undone’} \\
e. & \text{doadjāsit ‘happen to get broken’} \\
f. & \text{giessasit ‘roll up, wind, twist itself’} \\
g. & \text{gokčasit ‘happen to get covered’} \\
h. & \text{juohkāsit ‘divide, be divided’} \\
i. & \text{leaikāsit ‘happen to be poured out, run out’} \\
j. & \text{rahpasit ‘open’} \\
k. & \text{šāvgāsit ‘happen to be poured out’} \\
\end{array} \]

As an illustration, a sentence pair with the verbs rahpasit ‘open (intr.)’ and rahpat ‘open (tr.)’, shown in (43j), is given in (44):

\[(44) \begin{array}{l}
a. \text{Ovllá raba-i uvssa.} \\
\text{Ovllá open-PAST.3SG door.SG.ACC} \\
\text{‘Ovllá opened the door.’} \\
\end{array} \]

\textsuperscript{13} Outakoski & Vinka (2008) show that the causative verb cuovkanahttit ‘cause to break’ is grammatical only if the causer is inanimate, and in addition, one of the constituents of the clause must undergo \textit{wh}-movement, as in (i):

\[(i) \text{Mii cuovka-n-aht-ii láse?} \]
\[ \text{what.NOM break-VCAUS-PAST.3SG window.SG.ACC} \]
\[ \text{‘What caused the window to break?’} \]

Outakoski & Vinka propose that the causative verb in (i) involves a causative head which is exceptional in several respects: it takes an inanimate causer, it does not require an agentive base verb, and it is endowed with a \textit{wh}-feature, which needs to be matched with a \textit{wh}-feature in some other constituent.
b. Fáhkkestaga rahpa-s-ii uksa.  
        suddenly open-INTR-PAST.3SG door.SG.NOM  
  ‘Suddenly the door opened.’

Hence, this verb pair appears to be an ordinary transitive alternation pair. Nevertheless, intransitive verbs of the type shown in (43) and in (44b) are classified as passives by Nielsen (1926: 256). This classification has become standard in traditional descriptions of Sámi, and it is also found e.g. in Ruong (1943) and Nickel (1990). It is however clearly wrong.

In the following, I show in 4.1 that North Sámi s-marked verbs are not passives. In 4.2 I argue that they instead should be analysed as marked anticausatives, along the lines of Alexiadou, Anagnostopoulou & Schäfer (2015). In 4.3 I demonstrate that reflexive verbs in North Sámi are different, and in 4.4 I present s-marked verbs that do not have transitive counterparts. My conclusions are summed up in 4.5.

4.1 Intransitive verbs marked with -s- are not passives

The idea that the s-marked verbs in (43) are passives can be refuted relatively easily by comparing them to ordinary North Sámi passives. The North Sámi passive does not allow an agent phrase to appear, so the agent phrase test for passive does not apply. But another characteristic property of passives is the ability to control PRO, which is seen also in North Sámi, for example in a non-finite purpose clause, as in (45).14

(45) Ollu doaimmat evttov-uvvo-jedje nannen dihte sámi oahpu.  
    many activity.PL.NOM propose-PASS-PAST.3PL strengthen in.order.to Sámi education.SG.ACC  
  ‘Many activities were proposed in order to strengthen Sámi education.’

It is an old observation that purpose clauses are allowed with passives, and it is generally taken to indicate that an implicit external argument is present (see e.g. Alexiadou et al. 2006 for an overview). I will take the purpose clause to be controlled by the implicit external argument that is existentially bound by the Pass head (see 2.4).15 However, as shown in (46), the intransitive rahpasit ‘open’ cannot appear with a purpose clause. To convey the intended meaning, the passive form of the transitive rahpat ‘open’ must be used instead, as in (47).

      door.SG.NOM open-INTR-PAST.3SG get in.order.to clean.ATTR air.ACC  
  Intended meaning: ‘The door opened in order to get clean air.’

(47) Uksa rahppo-juvvu-i oazžun dihte buhtes áimmu.  
      door.SG.NOM open-PASS-PAST.3SG get in.order.to clean.ATTR air.ACC  
  ‘The door was opened in order to get clean air.’

I conclude that s-marked intransitive verbs in North Sámi are not passives – they do not involve a Pass head and no implicit external argument.

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14 The verb form nannen in (45) is traditionally taken to be a shortened genitive of the aktio, which is a type of action noun that can be formed from any verb in the language. The full genitive form of the aktio of nannet ‘strengthen’ would be nannema. However, Ylikoski (2009) argues that the verb in these cases forms a compound with dihte ‘in order to’, and he calls these compounds “purposive convertives”. See also Vinka (2002: 93) on the structure of North Sámi purpose clauses.

15 Kallulli (2007) suggests instead that purpose clauses are licensed by agent phrases, by-Phrases, that may be overt or implicit. However, since North Sámi does not allow agent phrases with passives at all, we would have to say that they are always implicit in this language. I think this would be too stipulative as an explanation of the distribution of purpose clauses in North Sámi.
4.2 S-marked verbs as marked anticausatives

Vinka (2002) takes s-marked verbs to have the same syntactic structure as the intransitive verbs discussed in the previous sections. For Vinka, verbs like dipmat ‘become soft’ and verbs like rahpasit ‘open (intr.)’ are all made up of a root plus an inchoative verbaliser, and the difference is only a matter of phonological realisation of the verbaliser.

I am not convinced that this is a correct analysis of s-marked intransitives, though. Consider the verb pairs in (48), each of which consists of a transitive agentive verb and an s-marked intransitive verb based on the same root.

(48) **Intransitive verb** | **Transitive verb**
---|---
(a) ádjäsit ‘be driven away’ | ádjit ‘drive’
(b) beađđasit ‘happen to get pricked’ | beađđat ‘prick, make a hole in’
(c) cápmásit ‘happen to be beaten’ | cábmit ‘hit, beat’
(d) čatnasit ‘happen to get tied, bound’ | čatnat ‘tie’
(e) cállásit ‘happen to be written, scratched etc.’ | cállit ‘write’
(f) čiečcasit ‘get kicked (away)’ | čiečcat ‘kick’
(g) čiktásit ‘happen to be mended’ | čiktit ‘mend (of fishing net)’
(h) čohkasit ‘happen to be combed’ | čohkut ‘comb’
(i) garvásit ‘happen to be walked round’ | garvit ‘make a detour around’
(j) heaitásit ‘be given up, abolished’ | heaitit ‘give up, abolish’
(k) laktásit ‘happen to be joined’ | laktit ‘join (end to end)’
(l) suoddásit ‘happen to be cut up for boiling’ | suoddat ‘cut up for boiling’
(m) suohppásit ‘get thrown away as useless’ | suohpput ‘throw away, discard’
(n) vadjasit ‘happen to get cut or clipped off’ | vadjat ‘cut out’

The intransitive members of these pairs denote events that are not very likely to occur spontaneously. This is why they have been mistakenly analysed as passives. At the same time, it has been observed that s-marked verbs seem to imply that the event happens “by itself” (Nielsen 1926: 256). And as illustrated in (49), they are compatible with the expression iešalddes ‘by itself’:

(49) Uksa rahpa-s-ii iešalddes.
door.sg.nom open-intr-past.3sg by.itself
‘The door opened by itself.’

The North Sámi s-marked verbs fit the description of marked anticausatives given by Alexiadou, Anagnostopoulou & Schäfer (2015), who note that by itself, which denies that a causer is involved, is compatible with transitives and anticausatives, but not with passives. Marked anticausatives often carry morphology that is also found in alternations related to Voice, such as reflexives and passives. They propose that marked anticausatives involve what they call “expletive Voice”, that is, a Voice projection which is semantically and thematically inert. This means that there is no external argument, not even an implicit one.

My proposal is therefore that the suffixed s- seen in the intransitive verbs in (43) and (48) spells out an expletive Voice head, and that the verbs contain the syntactic structure shown in (50): 16

---

16 An entirely different s-suffix is seen in verbs like šloaipasit ‘go somewhere, stiff-legged and clumsy’, from šloaipi ‘stiff-legged and clumsy person’. In these verbs, the s- represents the verbaliser.
Alternatively, the s- could be the spellout of a verbaliser that is embedded under an expletive Voice head. However, in (54) below we will see s-marked verbs where the s- is added outside the realisation of the verbaliser. Hence, I take s- to spell out expletive Voice.

The complete absence of an external argument in this structure would explain the inability of s-marked verbs to control purpose clauses. The presence of a Voice head could on the other hand explain why s-marked verbs in North Sámi also regularly have a potential passive reading in addition to the anticausative reading. For example, *botnjasit* (see (43b)) means ‘twist, turn by chance’ or ‘be able to be twisted, turned’, mended’ (Nielsen 1932: 214). Thus, unlike the ordinary North Sámi passive, which I take to spell out a head that selects VoiceP as its complement (see 2.4), potential passives are related to the Voice head.17

### 4.3 Reflexive verbs in North Sámi

We can now note that while in some languages the marking that appears in anticausatives is also found in reflexives (see e.g. Embick 2003; Alexiadou, Anagnostopoulou & Schäfer (2015), the suffixed s- does not mark reflexives in North Sámi. The language has a few reflexive verbs, but these are marked with a suffixed d-, as shown in (51).

(51) TRANSITIVE VERB REFLEXIVE VERB

a. *bassat* ‘wash’ *basadit* ‘wash (oneself)’

b. *čiehkat* ‘hide’ *čiehkádit* ‘hide (oneself)’

c. *nuollat* ‘undress’ *nuoladit* ‘undress (oneself)’

The base verbs in (51) are transitive, while the derived reflexives are intransitive, in the sense that they take only one nominal argument. But just like their transitive counterparts, the reflexive verbs involve an external argument, which can be seen from the fact that they can control purpose clauses:

(52) Son nuola-d-ii lâvddi-s provoseren dihte gehčči-id.
s/he undress-REFL-PAST.3SG stage-SG.LOC provoke in.order.to viewer-PL.ACC

’S/he undressed on stage in order to provoke the audience.’

I will assume that the overt DP argument is the external argument, merged in Spec,VoiceP. I will leave aside the question of exactly how the reflexive reading arises, but instead refer to Embick (2003), Koontz-Garboden (2009) and the references found in these works for more details on reflexivisation, noting Embick’s observation that “verbs with reflexive interpretation do not allow for a uniform syntactic analysis cross-linguistically” (Embick 2003: 148).

Importantly, only roots that are specified to appear with the reflexive marker d- can form reflexives of the type shown in (51) in North Sámi. Other verbs must take the reflexive pronoun *ieš* ‘self’ as an argument in order to get a reflexive interpretation, as in the example in (53):

17 An anonymous reviewer notes that the reading that I call “potential passive” looks very similar to generic middles, and also that generic middles typically involve a marker which is also used for marked anticausatives. Hence, the reviewer suggests, it might be the case that generic middles in general involve expletive Voice, or that there at least is a close relationship between expletive Voice and Voice in generic middles.
(53) Olmmái jedd-ii iežas dái-guin sánii-guin.
    man.sg.nom comfort-past.3sg self.sg.acc this-pl.com word-pl.com
    ‘The man comforted himself with these words.’

Summing up, reflexives are always morphologically and syntactically distinct from anticausatives in North Sámi.

### 4.4 S-marked verbs formed from intransitive verbs

Returning now to the s-marked verbs shown above, we see that they all have transitive counterparts. This must mean that the expletive Voice head in the s-marked verbs can be replaced by an ordinary active Voice head which introduces an external argument. There are however also s-marked verbs in North Sámi that have unaccusative counterparts. Some examples are shown in (54).

(54) a. bábbasit ‘become swollen accidentally’ – from báddat ‘swell’
    b. bávttasit ‘be forced onto the ice (of water)’ – from bávtat ‘force its way onto the ice’
    c. gávvasit ‘happen to change direction (of road etc.)’ – from gávvat ‘have a bend’
    d. geaigasit ‘get into an extended position’ – from geaigat ‘be in an extended position’
    e. jópmásit ‘become numb, dead’ – from jápmit ‘die’
    f. laigasit ‘by chance happen to get loose, peel off’ – from laigat ‘get loose, peel off’

The suffixed -s here indicates that the event happens accidentally (Nielsen 1926: 257). Note that the realisation of the verbaliser seen in the base verb is retained in the s-marked verb. Thus, these s-marked verbs are formed by adding an expletive Voice head to an ordinary unaccusative verb, as the verbs shown to the right in (54).

Transitive versions of the verbs in (54) must be derived by causativisation, as shown in (55) for jópmít ‘die’, seen in (54e).

(55) Galggan go jámi-h-it bán go ovdal go bore-goádán?
    shall.prs.1sg q die-caus-inf tooth.sg.acc before drill-begin.prs.1sg
    ‘Shall I anaesthetise the tooth before I begin to drill?’

Like quite a few other causatives, the causative verb jámihit has a special meaning: it means ‘anaesthetise’, not ‘cause to die’. But in spite of the special listed meaning, I see no reason not to assume that jámihit is an ordinary causative structurally.

### 4.5 Conclusions

In this section, we have looked at a class of intransitive verbs that are distinguished morphologically by having a suffixed s-. They are not agentive but tend to denote events that are not very likely to occur spontaneously. These verbs match the description of marked causatives given in Alexiadou, Anagnostopoulou & Schäfer (2015), and I have proposed that they should be analysed accordingly, as verbs involving an expletive Voice head.

#### 5 Equipollent marking

In addition to the causativisation and anticausativisation patterns that we have seen in the preceding sections, North Sámi also have transitivity alternations with a third morphological pattern, namely, what
Haspelmath (1987) calls equipollent alternations, where both members of the verb pair are marked to the same degree. An example is given in (56):

(56) a. Mun báhkka-n-in.
    I heat-INTR-PAST.1SG
    ‘I got hot.’

b. Beaivvăš báhka-d-ii mu.
    sun.SG.NOM heat-TR-PAST.3SG me
    ‘The sun heated me.’

In this case, both verbs are clearly semantically and formally related to the noun báhkka ‘heat’, but marked with different suffixes, the intransitive verb with an -n- and the transitive verb with a -d-. Given what we have seen in the preceding sections, we can reasonably assume here that we have an ordinary unaccusative verb in (56a) and an ordinary transitive verb in (56b), with different phonological realisations of the verbalisers.

In (57) we see some more examples of transitivity pairs where the intransitive verb has a suffixed n- and the transitive verb a suffixed d-.

(57) | INTRANSITIVE VERB | TRANSITIVE VERB |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. allánit ‘get higher, rise’</td>
<td>alidit ‘make higher, promote’</td>
</tr>
<tr>
<td>b. báhkkanit ‘become hot’</td>
<td>báhkadit ‘heat (up)’</td>
</tr>
<tr>
<td>c. buorránit ‘become better’</td>
<td>buoridit ‘improve, repair’</td>
</tr>
<tr>
<td>d. geahppánit ‘become smaller, less’</td>
<td>geahpedit ‘diminish, reduce’</td>
</tr>
<tr>
<td>e. govđanit ‘become broader’</td>
<td>govddidit ‘make broader or wider’</td>
</tr>
<tr>
<td>f. hedjonit ‘get weaker, get worse’</td>
<td>heajudit ‘make worse’</td>
</tr>
<tr>
<td>g. lahkkanit ‘come nearer, approach’</td>
<td>lagadit ‘bring nearer’</td>
</tr>
<tr>
<td>h. liegganit ‘get warmer, be heated’</td>
<td>liekkadit ‘warm up, heat’</td>
</tr>
<tr>
<td>i. vuollánit ‘go or come lower, give in’</td>
<td>vuolidit ‘make lower, humble’</td>
</tr>
</tbody>
</table>

All these verbs denote change of state. The verbs with a suffixed n- that we saw in section 3 also denote change of state, and we can conclude that this marker only appears as the phonological realisation of the verbaliser in intransitive change-of-state verbs. As for the suffixed d- seen in the transitive verbs, it is most likely the same d- as we saw in the transitive verbs in 2.2, which I analysed as the realisation of Voice in change-of-state contexts.\(^{18}\)

In (58), we see some pairs where the intransitive verb is marked with an n- while the corresponding transitive verb is marked with an h-, and in addition, one pair with intransitive n- and transitive l-.

(58) | INTRANSITIVE VERB | TRANSITIVE VERB |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. darvánit ‘fasten on to, get stuck’</td>
<td>darviihit ‘fasten, paste on’</td>
</tr>
<tr>
<td>b. dorranit ‘shrink, crumple or pucker up’</td>
<td>dorrehit ‘cause or allow to shrivel’</td>
</tr>
<tr>
<td>c. gepmánit ‘capsize, upset’</td>
<td>gomihit ‘turn upside down’</td>
</tr>
<tr>
<td>d. hárjánit ‘become accustomed’</td>
<td>hárjehit ‘accustom’</td>
</tr>
<tr>
<td>e. heavvanit ‘drown’</td>
<td>heavahit ‘drown’</td>
</tr>
<tr>
<td>f. lassánit ‘increase, breed, multiply’</td>
<td>lasihit ‘increase’</td>
</tr>
<tr>
<td>g. skilganit ‘break’</td>
<td>skilgalit ‘break’(^{19})</td>
</tr>
</tbody>
</table>

\(^{18}\) North Sámi has many different d- markers. In addition to the transitive d-, we have seen that d can represent the verbaliser in intransitive change-of-state verbs, as in čáhpodit ‘become black’, shown in (5a), and it is also a reflexive marker – see (51). Moreover, d- can mark aspect, e.g. continuative, such as such as viégadit ‘run for a while’, from viehkat ‘run’, and semelfactive, such as čolgadit ‘spit once’, from čolgat ‘spit’.

\(^{19}\) These two verbs take glass, earthenware or ice as undergoing argument.
The *h*-marker seen in the transitive verbs in (58a-f) might be identified with the causative marker seen in section 2, or else, since there is no realisation of the verbaliser to be seen inside -*h*, the *h*- in the verbs given above has been reanalysed as the realisation of the verbaliser in the context of Voice head and a root belonging to a specified set, so that the vocabulary entry for this marker is as given in (59):

\[
(59) \quad v \leftrightarrow /h/ \ /
\begin{array}{l}
\text{[Voice]} \quad \{\text{√darv, √dorr, √gopm, √hárj, ...}\}
\end{array}
\]

A more regular pattern is seen in the examples in (60). The intransitive verbs involve the suffixes -*huvvat*, -*duvvat* or -*stuvvat*, and in all these cases, a transitive verb is formed by replacing the sequence -*uvvat* with the sequence -*uhttit*. This holds without exception: intransitive verbs in -*uvvat* correspond to transitive verbs in -*uhttit*.

\[
(60) \quad \begin{array}{ll}
\text{Intransitive verb} & \text{Transitive verb} \\
a. \quad \text{earáhuvvat} ‘change’ & \text{earáhuhttit} ‘change’ \\
b. \quad \text{fámuhuvvat} ‘become powerless’ & \text{fámuhuhttit} ‘make powerless’ \\
c. \quad \text{heakkahuvvat} ‘lose one’s life’ & \text{heakkahuhttit} ‘take the life of’ \\
d. \quad \text{muosehuvvat} ‘be disturbed’ & \text{muosehuhttit} ‘disturb’ \\
e. \quad \text{návccahuvvat} ‘become weak’ & \text{návccahuhttit} ‘make weak’ \\
f. \quad \text{ráfäduvvat} ‘get peace’ & \text{ráfäduhttit} ‘give peace to’ \\
g. \quad \text{sámáiduvvat} ‘get Sámi influences’ & \text{sámáiduhttit} ‘give Sámi influences to’ \\
h. \quad \text{vajálduvvat} ‘be forgotten’ & \text{vajálduhttit} ‘forget’ \\
i. \quad \text{hirpmástuvvat} ‘be surprised, startled’ & \text{hirpmástuhttit} ‘surprise, startle’ \\
j. \quad \text{nuppástuvvat} ‘change’ & \text{nuhppástuhttit} ‘change’
\end{array}
\]

In the pairs shown in (57) and (58) an “equipollent” pattern arises simply because the verbalisers have consonantal realisations in intransitive as well as in transitive contexts. In (60) the structure of the verbs is more complex – for example, the verbs in *huvvat* could be analysed as compounds, with *huvvat* meaning ‘be bereft of, lose’. Still, also here the “equipollent” pattern arises because the intransitive and the transitive verbs are equally heavy phonologically.

What we do not find in North Sámi is transitivity alternation pairs where both the intransitive and the transitive verbaliser have a vocalic realisation. That is, although we find intransitive (unaccusative) verbs like *jorrat* ‘rotate’ (see (3d)) and *divrut* ‘become (more) expensive’ (see (11a)), and also transitive (causative) verbs like *cuovkut* ‘break’ and *čavgat* ‘tighten’ (see (33ab)), there are no pairs where only the theme vowel differentiates between the two members. At present, this is just an observation that I cannot provide any explanation for. After all, if the phonological realisation of the verbaliser is determined by the root, then one might think that it should be possible for a root to require one vocalic realisation of an intransitive verbaliser that combines with it and another vocalic realisation of a transitive verbaliser that combines with it. Why this never happens is at present an open question.

### 6 An overview of the transitivity alternation in North Sámi

In the preceding sections we have seen that many different morphological patterns are involved in the transitivity alternation in North Sámi. In addition, I have argued that there is some variation in the syntactic structure of the intransitive verbs and also syntactic variation among the transitive verbs. In this section, I will try to present an overview of my findings, and I will also add some comments having to do with the limits of the alternation.

First of all, it is clear that change-of-state verbs and also unaccusative motion verbs take part in the transitivity alternation in this language. The intransitive versions of the motion verbs have a vocalic phonological realisation of the verbaliser, as seen in *fierrat* ‘roll’ and *cirgut* ‘spurt (intr.)’. The markers *u*- and *a*- are specified to occur with certain sets of roots. The transitive versions of these verbs are formed by means of the productive causative.
Intransitive change-of-state verbs show considerable morphological variation. Some of them have a vocalic phonological realisation of the verbaliser, e.g. divrut ‘become (more) expensive’ (see (11a)) and dipmat ‘become soft’ (see (11e)). Others have a consonantal phonological realisation of the verbaliser, e.g. čähpodiit ‘become black’ (see (5a)), gievrassamit ‘become strong(er)’ (see (5d)), cuovkanit ‘break, become broken’ (see (33a)), and allánit ‘get higher, rise’ (see (57a)).

Some of the intransitive verbs marked with n- correspond to transitive verbs with a vocalic phonological realisation of the verbaliser. For example, the intransitive cuovkanit ‘break’ corresponds to the transitive cuovkut ‘break’ (this and other similar pairs were shown in (33)). There are also intransitive verbs with n- that correspond to transitive verbs with a consonantal phonological realisation of the verbaliser. Examples are pairs like allánit ‘get higher, rise’ and alidit ‘make higher, promote’ (see (57a)), darvánit ‘fasten on to, get stuck’ and darvihit ‘fasten, paste on’ (see (58a)), skilganit ‘break (intr.)’ and skilgalit ‘break (tr.)’ (see (58g)). In all these cases the vocalic or consonantal vocabulary item that spells out the verbaliser in the transitive and the intransitive verb must be specified to combine with a certain set of roots, and it must also be specified whether or not they appear in the context of Voice.

The intransitive change-of-state verbs that have a vocalic verbaliser, such as divrut ‘become (more) expensive’, have corresponding transitive verbs that are marked with -d-, as in divrudit ‘cause to become (more) expensive’. The -d- is also seen in some transitive verbs where the verbaliser appears to have a zero realisation, such as stuoridit ‘enlarge’ (see (17c)). I have suggested that this -d- is the realisation of a Voice head. Notably, it does not have to be specified to appear with certain roots. Instead, it can be characterised as the spellout of a Voice head that has a change-of-state complement where the verbaliser is spelled out as a vowel or as zero. In divrudit the verbaliser is spelled out as u-, whereas in stuoridit it is spelled out as zero. In alidit ‘make higher, promote’, which corresponds to the intransitive verb allánit ‘get higher, rise’ (see above), the verbaliser is also spelled out as zero, since, unlike the vocabulary item -u-, which can spell out verbalisers in intransitive and in transitive context, the vocabulary item n- only spells out verbalisers in intransitive contexts. Hence, the marker d- can appear in transitive verbs that correspond to intransitive verbs with n-.

Those intransitive change-of-state verbs that do not have a specified realisation of their transitive counterparts can only be made transitive by means of the productive causative. Some examples were given in (5), e.g. čähpodiit ‘become black’ and čähpodahttit ‘blacken’, and in (39)–(41), e.g. bohtanit ‘swell’ and bohtanahttit ‘cause to swell’.

Intransitive verbs with a suffixed s- constitute a distinct type in North Sámi. I discussed these verbs in section 4, and I concluded that they are marked anticausatives, involving an expletive Voice head (cf. Alexiadou, Anagnostopoulou & Schäfer 2015). Many s-marked verbs correspond to ordinary transitive verbs, but some of them are derived from unaccusative verbs.

We also noted in section 4 that some s-marked verbs denote events that are not very likely to occur spontaneously, such as vadjasit ‘happen to get cut or clipped off’ (see (48c)). This is in accordance with the proposal in Haspelmath (1993), and also in Alexiadou, Anagnostopoulou & Schäfer (2015: 114 ff.) that marked anticausatives tend to denote events that are less likely to occur spontaneously. However, we also find s-marked verbs that are higher on the spontaneity scale, such as čahvdásit ‘loosen, become undone’, shown in (43d). Nevertheless, all s-marked verbs in North Sámi must be classified as verbs that require a Voice head even in their intransitive version. Even though marked anticausatives are relative low on the spontaneity scale crosslinguistically, the demarcation line is not necessarily drawn in the same place in all languages.

Conceptualised spontaneity has also been connected to the existence of the transitivity alternation more generally. Levin & Rappaport Hovav (1995: 102) stated that a transitive verb can also be used intransitively “if the eventuality can come about without the volitional intervention of an agent”, and Alexiadou, Anagnostopoulou & Schäfer (2015) note that verbs denoting events that are extremely unlikely to occur spontaneously, such as ‘murder’, must combine with a thematic Voice head and thereby also with an external argument.

North Sámi is no exception in this respect. The language has numerous verbs that alternate, as we have seen, but also verbs that are obligatorily agentive, such as dulkot ‘interpret’, shown in (61). The only way to get the object in the active transitive verb to become a subject is through passivisation, as in (62).
(61) Journalista dulku-i mu sáni-id boastut.
journalist.SG.NOM interpret-PAST.3SG my word-PL.ACC wrongly
'The journalist interpreted my words wrongly.'

(62) Mu sánit dulko-juvvu-jedje boastut.
my word-PL.NOM interpret-PASS-PAST.3PL wrongly
'Verse res interpreted my words wrongly.'

This is thus an example of a verb that does not take part in the transitivity alternation, as defined at the outset of this paper, because of its agentivity – it cannot appear without a thematic Voice head. Unergative verbs do not alternate either, since they only have an external argument and no internal argument that could become the subject of a corresponding verb.

There are however also unaccusative verbs that do not alternate. An example is liedđut 'blossom', shown in (63).

(63) Gietti rássi liedđu-i.
meadow.SG.GEN grass-SG.NOM blossom-PAST.3SG
'The grass in the meadow blossomed.'

There is no lexicalised transitive version of this verb, and if we try to causativise it by means of the productive causative suffix -h-, the result is the verb liedđhut, which is morphologically well-formed but which cannot be used successfully in clauses. This means that liedđut cannot be construed with an external argument representing an agent or cause.

The verb goldnat 'wilt', by contrast, has the transitive counterpart goldnadit 'cause to wilt', as shown in (64):

(64) Beaivváš badjána boaldi báhkà-in-is ja goldna-d-a suinni-id.
sun.SG.NOM rise.PRS.3SG burning heat-SG.COM-POS.3SG and wilt-TR-PRES.3SG grass-PL.ACC
'The sun rises with its burning heat and makes the grass wilt.'

As Levin & Rappaport Hovav (1995: 97) note, the change of state that verbs like “wilt” describe is “inherent to the natural course of development of the entities that they are predicated of”. However, as they also observe, the development can be influenced externally, and in these cases transitive verbs are possible – which is exactly what we see in (64).

It is perhaps a little more difficult to influence a plant to blossom than to cause it to wilt, but both can be done, and it is hard to see any principled semantic distinction between unaccusative verbs that alternate and unaccusative verbs that do not. The distinction between goldnat ‘wilt’, which alternates, and liedđut ‘flower, blossom’, which does not, appears to be an idiosyncratic choice that North Sámi has made. In Norwegian, for example, neither blomstre ‘blossom’ nor visne ‘wilt’ alternates. Thus, it is clear that different languages can make different choices.

That languages do not classify all verbs in the same way is also noted e.g. by Haspelmath (1993: 96), who says that either the semantic conditions on transitivity alternation are not universal, or else there are subtle differences in verb meaning across languages, and also by Schäfer (2009: 673), who notes that “verbs undergoing the causative alternation have a very stable core (non-agentive verbs of change of state), but that there are subclasses of verbs where languages differ”.

7 Conclusions

Transitivity alternations always have morphological reflexes in North Sámi. In some cases, the causative counterpart of an unaccusative verb is formed by ordinary causativisation, where a causative syntactic
head and also a Voice head are added above the unaccusative vP. Other transitive members of transitivity alternation pairs are formed by simply adding a Voice head to the unaccusative structure.

However, the verbalisers have many different phonological realisations, whether they appear in intransitive structures or in transitive ones. Some realisations involve a consonant while others are vocalic only. While the consonantal realisations stand out as suffixes, the vocalic realisations are traditionally not identified as such. Consequently, one can get the impression that in some of these transitivity pairs the transitive member is more marked than the intransitive member, whereas in other pairs it is the other way round – in addition to pairs where both members appear to be marked to the same degree. However, it turns out that Vinka (2002) was basically right in claiming that the morphological variation seen in unaccusative verbs and also in the corresponding transitive verbs is a matter of allomorphy, although he ascribed no morphological status to the theme vowels that are analysed in this paper as phonological realisations of verbalisers.

Vinka (2002) also took intransitive verbs marked with s- to be like other unaccusative verbs structurally, although they are classified as passives in the traditional grammars of North Sámi. I have argued instead that these verbs are marked anticausatives, which means that they involve an expletive Voice head, as proposed in Alexiadou, Anagnostopoulou & Schäfer (2015).

Seen from a typological point of view, North Sámi is quite unexceptional in having many transitivity alternation pairs, some of them involving marked anticausatives, but also verbs that are always agentive and verbs that are never agentive.

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Abbreviations

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<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<td>ACC</td>
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<td>ADJ</td>
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References


Ruong, Israel. 1943. Lappische Verbableitung dargestellt auf Grundlage des Pitelappischen (Sámi verbal derivation presented on the basis of Pite Sámi). Uppsala: Almqvist & Wiksell.


