

Nominal and Adjectival Roots in North Saami Verbs

Author(s): Marit Julien

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Nominal and Adjectival Roots in North Saami Verbs*

MARIT JULIEN

University of Tromsø

0. Introduction

According to recent proposals such as Marantz (1997, 2001) and Borer (2000) roots have no lexical category. The categories Noun, Verb, and Adjective result from combining a categoryless root with functional projections of nominal, verbal or adjectival nature, respectively.

While this appears to give a neat explanation of languages like English, for example, where many roots can function as nouns, as verbs, or as adjectives, the categories only differentiated by the inflection, I will nevertheless claim that even before they are inserted into syntactic structures, roots fall into different classes that correspond to the lexical categories noun, verb, and adjective. My claim is based on some observations of the semantic properties of derived verbs in North Saami. In this language, the meaning of stative, inchoative and causative verbs built on adjectival roots contrasts systematically with the meaning of verbs built on nominal roots. The meaning contrast must ultimately stem from the roots. That is, the class membership of the root affects the computation of the meaning of the derived verb.

The paper is organized as follows. In section 1 I present the basic facts about deadjectival and denominal verbs in North Saami. In section 2 I put forward a proposal concerning the syntactic representation of these verbs, and I show how the observed meaning contrast can be explained within the proposed framework. In section 3 I address some apparent exceptions to my analysis, and in section 4, I add some more comments on Marantz (1997). My conclusions are summed up in section 6.

1. Deadjectival and denominal verbs in North Saami

Let us begin by looking at the North Saami stative verbs in (1), which arguably are based on adjectival roots. Note that the citation forms of the adjectives include a marker of nominative singular, and that the verbs are given in their infinitival form, which includes the infinitival marker *-t* (after vowels) or *-it* (after consonants). The derivational marker is the suffix between the root and the infinitival marker. (The monophthongization /ie/>/i/ in (1e) is one instance of a more general phenomenon in the language.)

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(1) ADJECTIVE		STATIVE VERB
a. ruoks-at	'red'	> ruoks-á-t 'appear red'
b. bahč-a	'bitter'	> bahč-ist-it 'smell or taste bad'
c. bahč-a	'bitter'	> bahč-iid-it 'smell or taste bad'
d. liekk-as	'warm'	> liekk-ist-it 'feel warm'
e. liekk-as	'warm'	> likk-iid-it 'feel warm (by direct contact)'

In North Saami, stative verbs can also be formed from nominal roots. Some examples are given in (2). (In (2a) and (2b) we see another pervasive feature of North Saami morphophonology, namely, stem consonant gradation, as exemplified by the alternations *tnj* ~ *dnj* and *tn* ~ *dn*.)

(2) NOUN		STATIVE VERB
a. botnji	'twist'	> bodnj-á-t 'be twisted, bent'
b. ritni	'rime'	> ridn-á-t 'be covered with rime'
c. ballu	'fear'	> ball-a-t 'fear, be afraid'
d. bárti	'trouble'	> bárti-d-it 'be in trouble'
e. illu	'joy'	> illu-d-it 'be happy'

Now note, firstly, that in (1) and (2) the choice of verbalizing suffix is idiosyncratic for each root. Further, there is a systematic meaning difference between the verbs in the two groups. While the verbs in (1) essentially mean 'be Adjective', the verbs in (2) do *not* mean 'be Noun'; they mean roughly 'have Noun'. However, there is no obvious reason why the derived verbs in (2) should not mean 'be Noun'. From a pragmatic point of view, we would expect a verb meaning 'be joy', for example, to be perfectly acceptable. Moreover, the nominals in (2) may well combine with the copula *leat* 'be' to give expressions like *leat ritni* 'be rime', *leat illu* 'be joy'. Hence, the source of the meanings that we see in (2) must be sought in the grammar, or more precisely, in the syntactic and semantic relations holding between the elements that the complex verbs are made up of.

From adjectival roots it is also possible to derive inchoative verbs in North Saami. The examples in (3) illustrate this. Other inchoative verbs are formed from nominal roots, as in the examples in (4).

(3) ADJECTIVE		INCHOATIVE VERB
a. dimis	'soft'	> dipm-a-t 'become soft'
b. goikkis	'dry'	> goik-a-t 'become dry'
c. obba	'cloudy'	> obb-e-t 'become cloudy'
d. guhkki	'long'	> guhkk-u-t 'become long(er)'
e. lossat	'heavy'	> loss-u-t 'become heavy/heavier'
f. stuoris	'big'	> stuorr-u-t 'become big(ger)'
g. bahča	'bitter'	> bahča-g-it 'become bitter, get a bad taste'
h. ruoksat	'red'	> ruvss-od-it 'turn red, blush'
i. seavdnjat	'dark'	> sevnjn-od-it 'become dark'

(4) NOUN		INCHOATIVE VERB
a. čáhci	'water'	> čáhc-u-t 'become wet'
b. ruobbi	'rash'	> ruobb-u-t 'get a rash'
c. bárti	'trouble'	> bárttá-sk-it 'get into trouble'
d. vašši	'hatred'	> vaššá-sk-it 'get furiously angry'
e. dálлу	'farm'	> dálui-duvva-t 'get a farm'

Nominal and Adjectival Roots in North Saami Verbs

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|----|--------|----------|---|------------------|-----------------------------------|
| f. | idja | 'night' | > | idja-duvva-t | 'be overtaken by night' |
| g. | vealgi | 'debt' | > | vealggái-duvva-t | 'get (deeply) into debt' |
| h. | bihkka | 'tar' | > | bihkka-huvva-t | 'get smeared with tar' |
| i. | dálvi | 'winter' | > | dálvvá-huvva-t | 'be overtaken by winter' |
| j. | sálti | 'salt' | > | sáltá-šuvva-t | 'absorb salt; become salt enough' |

Strikingly, we find a meaning contrast between (3) on the one hand and (4) on the other that is parallel to the contrast between (1) and (2). While the verbs in (3) mean 'become Adjective', the verbs in (4) do not mean 'become Noun', they mean 'get to have Noun' or 'be affected by Noun'.

Even more strikingly, if we derive *causative* verbs from adjectival and nominal roots, respectively, as in (5) and (6), we get a similar effect once more. Causative verbs formed from adjectival roots mean 'cause to be/become Adjective', while causative verbs formed from nominal roots mean 'cause to have/get Noun'.

- | | | | |
|-----|-----------|----------|--|
| (5) | ADJECTIVE | | CAUSATIVE VERB |
| a. | buorre | 'good' | > buori-d-it 'improve _{TRANS} ' |
| b. | čuoŕbi | 'clumsy' | > čuoŕbbi-d-it 'make clumsy' |
| c. | guhkki | 'long' | > guhki-d-it 'lengthen' |
| d. | hálbi | 'cheap' | > hálbbi-d-it 'make cheap(er)' |
| e. | liekkas | 'warm' | > liekka-d-it 'warm up, heat' |
| f. | stuoris | 'big' | > stuori-d-it 'enlarge' |

- | | | | |
|-----|--------|----------|--------------------------------|
| (6) | NOUN | | CAUSATIVE VERB |
| a. | bihkka | 'tar' | > bihkka-d-it 'cover with tar' |
| b. | ruhta | 'money' | > ruhta-d-it 'finance' |
| c. | vearju | 'weapon' | > vearju-d-it 'arm' |

The generalization is that in deadjectival verbs, the root is ultimately predicated of the lower argument (that is, of the only argument if the verb is monovalent), while this is not the case with denominal verbs.

2. The source of the meaning contrast

The question is now: What is the source of this meaning contrast? A priori, it could, for example, be the verbalizing suffixes that are responsible. However, for one thing, in some cases one and the same verbalizer can appear with adjectival or nominal roots. One example is the *-á-* that we see in (1) and (2), another example is the *-u-* that we find in (3) and (4), and a third example is the *-d-* that appears in all the verbs in (5) and (6). This fact poses a problem for such an explanation.

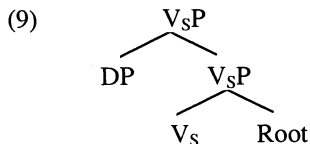
For another, if the source of the contrast is the verbalizers we would have to explain why some roots combine only with one type of verbalizer while other roots only combine with another type of verbalizer. Moreover, a similar meaning contrast is seen in English zero causative derivations, as (7) and (8) illustrate.

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|-------|---------------------|----------------------|
| (7)a. | clear (a screen) | 'make clear' |
| b. | dry (the clothes) | 'make dry' |
| (8)a. | saddle (a horse) | 'attach a saddle to' |
| b. | man (the torpedoes) | 'put men to' |

Hence, I think we have to conclude that the meaning contrast is ultimately a consequence of the roots being of different categories. In fact, even Marantz (2001) acknowledges that roots are of different semantic types. Among other things, he observes that some roots denote entities while others denote states. Although this is a relatively trivial observation, it is crucial in the present context. The distinction between entities and states corresponds to the distinction between nouns and adjectives, and it seems clear to me that it lies at the heart of the meaning contrast that we have seen between classes of derived verbs.

To show this, I will present an analysis that is based on what might be called a syntactic decomposition approach to the verbs in question. In an approach of this type it is assumed that if a verb denotes a semantically complex event, each part of the event is represented in the syntax, and that alternations with respect to event structure and argument structure are tightly connected to syntactic alternations. Works such as Hale & Keyser (1993, 1998, 2002), Arad (1998), Travis (1992, 2000), Pykkänen (2002), and Ramchand (2002) are relevant examples.

On the syntactic decomposition approach, the stative verbs in (1) and (2) must minimally involve a VP with the syntactic structure shown in (9). Here the root has combined with a verbal element, designated as V_S (where S stands for *stative*), which projects a $V_S P$ and thereby accommodates in its Spec the subject of the state, that is, the argument that the state holds of. The verbalizing suffixes in (1) and (2) are then realizations of this V_S element. On top of $V_S P$ there will be inflectional elements, but I will ignore this here and in the following, since the focus is on the formation of the verb itself.

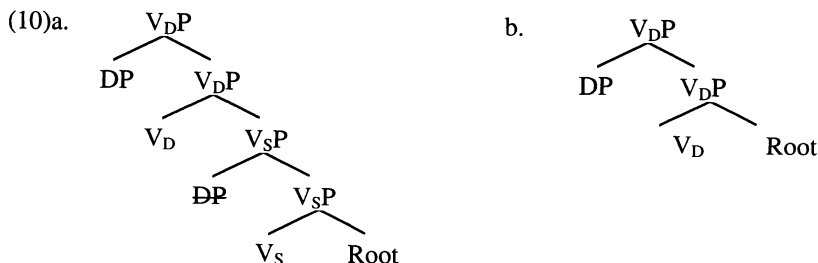


Concerning the idiosyncratic combinations of roots and verbalizers that we saw in (1) and (2) (and also in (3) and (4)), such idiosyncratic combinations are traditionally seen as being typical of so-called lexical derivation. However, Marantz (1997) argues that the properties associated with ‘lexical’ word formation are restricted to a specific syntactic domain—namely, the domain below the syntactic head that introduces the agent. The verbs in (1) and (2) do not involve an agent. Hence, on Marantz’ approach, the observed idiosyncrasies are not unexpected.

The inchoative verbs in (3) and (4) are semantically more complex than stative verbs. While stative verbs describe situations that have no internal temporal structure, inchoative verbs describe events that consist of a processual part and possibly a result state. If verbal meaning is built compositionally in the syntax, as I am assuming here, it follows that inchoative verbs involve a verbal head that encodes the process, as well as, if the verb is telic, a head encoding the result state. That is, a *telic* inchoative verb involves a VP with the syntactic structure shown in (10a), whereas an *atelic* inchoative verb involves a VP with the syntactic structure shown in (10b).

In (10a), a processual verbal head V_D (D for ‘dynamic’) is merged over the projection of the stative V_S . The argument DP that starts out in Spec- $V_S P$, where it is interpreted as the subject of the state, raises to Spec- $V_D P$ and gets the additional

interpretation that it is also the undergoer of the process (see Ramchand 2002). In (10b), the V_S head is missing, and consequently, the root combines directly with the V_D head, and the argument of the verb, which is located in Spec- V_{DP} , is only interpreted as the undergoer of the process.



Derived inchoative verbs in North Saami can be telic or atelic. This is seen in (3f), for example: *stuorrut* can mean both ‘get big’ and ‘get bigger’. If it means ‘get big’, the result state is defined, but not if it means ‘get bigger’. However, the verbs formed with the suffixes $-(i)duvva-$, $-huvva-$, and $-šuvva-$, as in (4e)–(4j), are only telic. As a consequence, while *stuorrut* is compatible with a degree adverbial like *veahá* ‘a little’ —see (11a), *vealggáiduvvat* ‘get into debt’ is not—see (11b).

(11)a. Biret lea sturro-n veahá dan rájes go mun oidnen su.
 Biret.NOM is get.bigger-PTC a little since I saw her
 ‘Biret has become a little bigger since I saw her.’

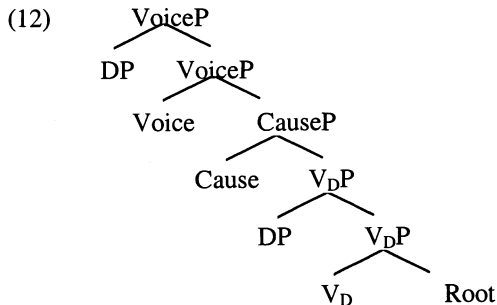
b. Biret lea vealggáiduvva-n (*veahá).
 Biret.NOM is get.into.debt-PTC a little
 ‘Biret has gotten (*a little) into debt.’

And interestingly, the suffixes $-(i)duvva-$, $-huvva-$, and $-šuvva-$ appear to be morphologically complex. The element $-d-$, for example, appears on its own as a verbalizer in (2d)–(2e), where I analyzed it as a realization of V_S . I therefore take $-d-$ to represent V_S also in (4e), (4f), and (4g), and $-h-$ and $-š-$ in (4h), (4i), and (4j) to be like $-d-$. The $-uvva-$ part of the suffix is then a realization of the processual head V_D in these examples. It now follows that the modifier *veahá* is felicitous with *stuorrut* but not with *vealggáiduvvat*. Pragmatically, it is of course possible to get more or less deeply into debt. But grammatically, whenever *vealggáiduvvat* is true of a subject, the resulting state also necessarily holds of that subject. It cannot then hold just a little. Because of this, modifiers like *veahá* are not appropriate. *Stuorrut*, on the other hand, does not necessarily encode a result state, and accordingly, it can be modified by degree adverbials.

As for the derived causative verbs in (5) and (6), I take the Cause head to be separate from Voice, the element that introduces the external argument. The reason is that when causatives are passivized, the causative marker is retained, and the passive marker $-uvvo-$ appears outside it, as demonstrated in (12). If the passive marker is the realization of a [–active] Voice head, it follows that the causativizer is separate from and below the Voice head (cf. Pylkkänen 2002).

- | | | | |
|--|---|-----------------|---------------------|
| (12) ACTIVE | | PASSIVE | |
| a. buori-d-it 'improve _{TRANS} ' (5a) | > | buori-d-uvvo-t | 'be improved' |
| b. guhki-d-it 'lengthen' (5c) | > | guhki-d-uvvo-t | 'be lengthened' |
| c. hálbbi-d-it 'make cheap(er)' (5d) | > | hálbbi-d-uvvo-t | 'be made cheap(er)' |
| d. ruhta-d-it 'finance' (6b) | > | ruhta-d-uvvo-t | 'be financed' |

Hence, the VP domains of causative verbs minimally have the syntactic structure shown in (13). Note that In addition, at least some of the derived causative verbs also probably include a V_S projection, which is omitted in (13).



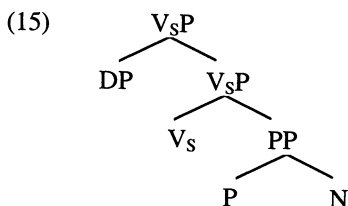
Concerning the claim that roots with substantial content can be of different semantic types, I suggested above that nominal roots denote entities, while adjectival roots denote states. This needs some modification: nominal roots do not exactly denote entities. But they are arguably not predicates either. For example, Zamparelli (2000) argues that a nominal predicate contains various functional projections in addition to the root. Embedded in the predicate, there is a projection that denote the kind, that is, the whole class of entities associated with the meaning of the nominal root, possibly modified by adjectives. I take reference to entities to be the result of determiners and quantifiers having operated on, that is, quantified and possibly specified, the reference of the kind-referring projection (see, e.g., Longobardi 2001). This means that nominal roots can be characterised as entity-denoting in the sense that they denote classes of entities, although they do not denote individual entities, since their denotations are not specified or quantified. It follows that nominal roots are of the same semantic type as full DPs. An indication that this is not too far from the truth is found in Scandinavian. From the Norwegian examples in (14) we see that a bare singular noun can be an argument just as well as a singular noun with a determiner (see Borthen 1999, 2000 for a more detailed treatment). The main difference is that the bare noun does not give any indication of grammatical number.

- (14)a. Det vart sett **ein ulv** her i går.
 it became seen a wolf here yesterday
 'A wolf was seen here yesterday.'
- b. Det vart sett **ulv** her i går.
 it became seen wolf here yesterday
 'One or more wolves were seen here yesterday.'

This means that nominal roots do not exactly denote entities; they denote kinds, that is, classes of entities. They refer to entities when their reference is quantified and possibly specified by functional elements such as determiners and quantifiers (cf. Zamparelli 2000, Longobardi 2001). I nevertheless conclude that determiners are not type-changing—what they do is operate on the reference of the nominal in various ways. I will therefore use the term ‘entity-denoting’ to characterize nominal roots in the following.

Now let us consider the derivation of stative verbs. I assume that V_S requires a state-denoting element as its complement, and that V_S together with its complement also denotes a state. Thus, when the complement is an adjectival root, there are no problems. However, if the complement is a nominal root, the result is ungrammatical and has no interpretation, because the nominal root is of the wrong semantic type.

One way to save the derivation is to merge the nominal root with a preposition before it combines with the verbalizer. This means that what I showed in (9) is actually the VP-structure of *deadjectival* stative verbs. *Denominal* stative verbs have the VP-structure shown in (15). Here the complement of V_S is a PP, which is of the right semantic type, and a state reading results. But because of the presence of the preposition, the nominal root is not directly predicated of the subject of the state. That is, instead of the meaning ‘be Root’, we get ‘be P Root’, which can be interpreted as ‘have Root’, since HAVE is the result of combining BE and P (as proposed by Kayne 1993). Otherwise, the exact relation that the P represents will be determined in a pragmatic fashion (see, for example, the verbs in (4)).



Exactly the same reasoning applies to denominal inchoative and causative verbs. The verbalizer requires a state-denoting complement. Because of this, it can combine directly with an adjectival root. Nominal roots, on the other hand, must combine with a preposition first, and the reading we get is ‘become P Noun’ or ‘get to have Noun’ for inchoatives, and ‘cause to be P Root’ or ‘cause to have Root’ for causatives.

That denominal verbs involve an abstract preposition was originally proposed by Hale & Keyser (1993), mainly on the basis of English verbs like *saddle*, whose meaning appears to involve a prepositional element (see (8a)). Now while this preposition is never visible in English, it sometimes *is* visible in North Saami.¹ Consider again the denominal verbs *dáluiduvvat* in (4e) and *vealggáiduvvat* in (4g), formed from the nouns *dállu* ‘farm’ and *vealgi* ‘debt’. The *-i-* that follows the root in these verbs is not a part of the root, and arguably not a part of the verbalizer either. In fact, it is identical to the marker of illative case, which can be

¹ As we have seen, the verbalizers also have their own phonological realization in North Saami. This means that denominal and deadjectival verbs in North Saami are formed by incorporation and not by conflation, in the terms of Hale & Keyser (2002).

analyzed as a reflex of a preposition. The regular illative singular forms of *dállu* and *vealgi* are shown in (16). (Note that the final *-i* in *vealgi* becomes an *-á* in front of the illative marker. This is a regular alternation which also occurs in *vealggáiduvvat*.)

- (16) NOMINATIVE SG ILLATIVE SG
 a. *dállu* ‘farm’ > *dállui* ‘to a/the farm’
 b. *vealgi* ‘debt’ > *vealgái* ‘to a/the debt’

We see that the only difference between the forms used in verbalization and the regular illative singular forms is that the stem consonants appear in the weak grade in the former but in the strong grade in latter. I am not sure what to make of the grade contrast, but I nevertheless believe that associating the *-i-* with the P element is not entirely without justification, especially since the *-i-* in question is only found with nominal roots, as Nielsen (1926) points out.

3. Verbs meaning ‘become Noun’

At this point, it has to be revealed that North Saami does in fact have a few denominal inchoative verbs meaning ‘become Noun’. Some of them are shown in (17).

- (17) NOUN INCHOATIVE VERB
- | | | | |
|--------------------------------------|---|------------------------|-----------------------------|
| a. <i>dálvi</i> ‘winter’ | > | <i>dálv-a-t</i> | ‘turn winter’ |
| b. <i>geassi</i> ‘summer’ | > | <i>geass-u-t</i> | ‘turn summer’ |
| c. <i>fiertu</i> ‘fine weather’ | > | <i>firt-e-t</i> | ‘become fine weather’ |
| d. <i>gállu</i> ‘cold weather’ | > | <i>gálu-d-it</i> | ‘become cold weather’ |
| e. <i>mosku</i> ‘fog in the dark’ | > | <i>moskku-d-it</i> | ‘become foggy in the dark’ |
| f. <i>duottar</i> ‘bare mountain’ | > | <i>duottar-duvva-t</i> | ‘become bare mountain’ |
| g. <i>šalka</i> ‘firm track in snow’ | > | <i>šalka-luvva-t</i> | ‘become firm track in snow’ |
| h. <i>čahki</i> ‘hard lump of snow’ | > | <i>čahki-luvva-t</i> | ‘form into lumps (of snow)’ |
| i. <i>gea'gi</i> ‘stone’ | > | <i>gea'g-u-t</i> | ‘turn into stone’ |
| j. <i>hilla</i> ‘ember’ | > | <i>hilla-luvva-t</i> | ‘turn into embers’ |
| k. <i>olmmái</i> ‘man’ | > | <i>olmmái-duvva-t</i> | ‘become a man’ |

If my account of the verbs meaning ‘become P Noun’ is correct, the existence of the verbs in (17) is unexpected. It is striking, though, that the majority of verbs of this type are based on roots that refer to meteorological phenomena, as in the examples (17a)–(17e), or to the terrain, as in (17f), or to the conditions for travelling, as in (17g) and (17h).

As Josefsson (1997) points out, some roots denote concepts that do not clearly belong one or the other ontological category—that is, their semantic class membership is somewhat vague—and consequently, the grammatical behavior of these roots is compatible with more than one semantic type. For the roots that we see in (17a)–(17h), it does not seem far-fetched to claim that they can be conceptualized as entities, which gives rise to the nouns seen in the left-hand column, or as states, which allows them to combine directly with an inchoative verbalizer and yield a verb which will be used to predicate the state of a subject (which in the case of a meteorological verb will be phonologically null.) For example, Nielsen (1932:584) says that *duottarduvtat* (in (17f)) means ‘assume the character of bare mountain’. I take this to mean that in this verb, the root *duottar* is seen from a state perspective rather than from an entity perspective.

For the verb in (17k), on the other hand, the analysis I have just sketched may seem less plausible. However, an informant tells me that the precise meaning of *olmmáiduvvat* is 'come to be like a man'. Hence, it is arguably the case even here that the root is conceptualized as state-denoting, although it normally would be entity-denoting. It should be noted that very few inchoative denominal verbs in North Saami do not describe meteorological phenomena or other aspects of the natural environment. Thus, there are not many verbs like *olmmáiduvvat* in the language. They cannot be freely formed, in contrast to the denominal verbs involving a P. That is, *olmmáiduvvat* must be listed in the lexicon. From the listed meaning it follows that in this verb, the state-like aspect of the root *olmmái* must be put to the front.

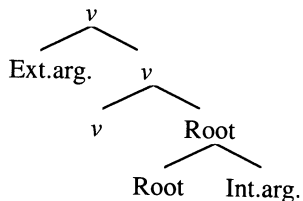
4. Marantz (1997) again

If we now return to Marantz (1997), it seems to me that my claim that roots are of different semantic types is not necessarily in conflict with Marantz' argumentation. Marantz' core observation is that external arguments are not syntactically included in nominalizations, hence the ungrammaticality of (18).

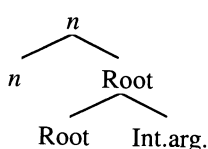
(18) * Mary's growth of tomatoes

The explanation that Marantz offers is that the root has no category, and that when it appears as a transitive verb, it is combined with a *v* head that verbalizes the root and also introduces the external argument in its Spec, as sketched in (19a). (An unaccusative verb, on the other hand, would involve a *v* head that does not allow an external argument to appear in its Spec.) But when the root is inserted in a nominal environment, as in (19b), there is no *v* and consequently no position where an external agent could appear unless the existence of that agent is implied by the root itself. Since *grow* implies internal causation, *growth* does not allow an external agent to be realized.

(19)a.



b.

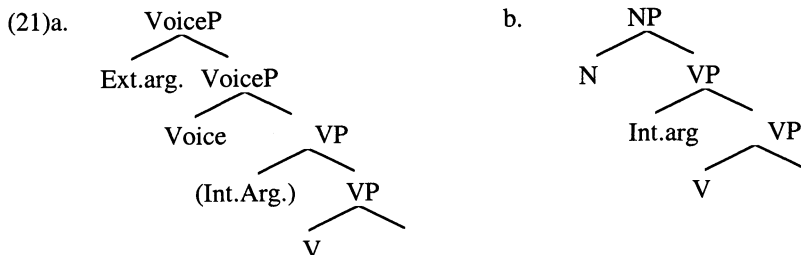


If a root of the *destroy*-type is nominalized, on the other hand, as in (20), the possessor can be interpreted as the agent, since the semantics of the root itself implies the presence of an agent. Thus, the analysis in Marantz (1997) gives the desired result concerning the distribution of external agents in nominalizations.

(20) John's destruction of his room

But as far as I can see, so could an analysis based on the view that roots are specified for category, or at least that the semantic type of the root matters for word formation. After Rivero (1990), Travis (1992), and Kratzer (1996), the idea that the external argument is introduced by a syntactic head distinct from V has become a fairly standard assumption. It follows from this assumption that the

agent introducing head, that is Voice, must be above V_D in processual transitive verbs and above V_S in stative transitive verbs. That is, verbs with external arguments involve at least the structure shown in (21a), where V stands for V_S or V_D .



To keep the external argument out of nominalized verbs, all we need to assume in addition is that the nominalizer combines with a constituent that is smaller than VoiceP. In the spirit of Alexiadou (2001) we could say that eventive nominalizations like *destruction* and *growth* contain a V_D projection, and that the nominalizer combines with V_D P. Result state nominals, such as *break*, involve a V_S head. In short, nominalizations minimally have the structure in (20b). In this structure, V can stand for a verbal root, or it can stand for a verbalizer that has a root of some other class as its complement.

5. Conclusions

The preceding discussion has shown, firstly, that derived stative, inchoative, and causative verbs in North Saami can successfully be analyzed within a framework based on syntactic decomposition of complex events. Secondly, the properties of these verbs indicate that roots belong to different semantic classes, corresponding to syntactic categories, and that the semantic class membership of the root can have syntactic and semantic consequences in verbalization.

References

- Alexiadou, Artemis. 2001. *Functional structure in nominals*. Amsterdam: John Benjamins.
- Arad, Maya. 1998. VP-structure and the syntax-lexicon interface. PhD dissertation, University College London.
- Borer, Hagit. 2000. Exo-skeletal vs. endo-skeletal explanations: Syntactic projections and the lexicon. Ms., University of Southern California.
- Borthen, Kaja. 1999. Bare singulars in Norwegian. *University of Trondheim Working Papers in Linguistics* 32.
- Borthen, Kaja. 2000. The distribution pattern of Norwegian bare singulars. In Christina Czinglar, Katharina Köhler, Erica Thrift, Erik Jan van der Torre, & Malte Zimmermann (eds.) *Proceedings of ConSOLE VIII*, 29–44. Leiden: SOLE.
- Hale, Kenneth and Samuel Jay Keyser. 1993. On argument structure and the lexical expression of syntactic relations. In Kenneth Hale & Samuel Jay Keyser (eds.) *The view from Building 20*, 53–109. Cambridge, MA: MIT Press.

Nominal and Adjectival Roots in North Saami Verbs

- Hale, Kenneth and Samuel Jay Keyser. 1998. The basic elements of argument structure. *MIT Working Papers in Linguistics* 32: 73–118.
- Hale, Kenneth and Samuel Jay Keyser. 2002. *Prolegomena to a theory of argument structure*. Cambridge, MA: MIT Press.
- Josefsson, Gunlög. 1997. *On the principles of word formation in Swedish*. Lund University Press. [Published 1998 as *Minimal words in a minimal syntax* by John Benjamins, Amsterdam.]
- Kayne, Richard S. 1993. Toward a modular theory of auxiliary selection. *Studia Linguistica* 47: 3–31.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In Johan Rooryck & Laurie Zaring (eds.) *Phrase structure and the lexicon*, 109–137. Dordrecht: Kluwer.
- Longobardi, Giuseppe. 2001. How comparative is semantics? A unified parametric theory of bare nouns and proper names. *Natural Language Semantics* 9: 335–369.
- Marantz, Alec. 1997. No escape from syntax. *University of Pennsylvania Working Papers in Linguistics* 4(2): 201–225.
- Marantz, Alec. 2001. Words. Talk given at the West Coast Conference of Formal Linguistics 20, University of Southern California, Los Angeles, February 2001.
- Nielsen. Konrad. 1926. *Lærebok i lappisk (samisk), vol. 1, Grammatikk [Lapp (Saami) primer, vol. 1, Grammar]*. Oslo: Brøgger. Reprinted 1979, Oslo: Universitetsforlaget.
- Nielsen. Konrad. 1932. *Lappisk (samisk) ordbok/Lapp dictionary, vol. 1, A–F*. Oslo: Aschehoug. Reprinted 1979, Oslo: Universitetsforlaget.
- Pylkkänen, Liina. 2002. Introducing arguments. PhD dissertation, MIT.
- Ramchand, Gillian. 2002. Aktionsart, L-syntax and selection. In Henk J. Verkuyl (ed.) *Proceedings of the Perspectives on Aspect Conference*, 1–15. Utrecht: OTS.
- Rivero, María-Luisa. 1990. The location of nonactive voice in Albanian and Modern Greek. *Linguistic Inquiry* 21: 135–146.
- Travis, Lisa deMena. 1992. Inner Aspect and the structure of VP. *Cahiers de Linguistique de l'UQAM* 1: 130–146.
- Travis, Lisa. 2000. Event structure in syntax. In Carol Tenny & James Pustejovsky (eds.) *Events as grammatical objects*, 145–185. Stanford, CA: CSLI Publications.
- Zamparelli, Roberto. 2000. *Layers in the determiner phrase*. New York: Garland.

Marit Julien
Faculty of Humanities
University of Tromsø
NO-9037 Tromsø
Norway

Marit.Julien@hum.uit.no