Asymmetries in the Onondaga Nominalizer

**Nutshell:** In Northern Iroquoian languages the nominalizer (NZLR) is typically required to transform a verbal root into a nominal root. It is required if the verbal root is to be used as a noun, either as a full nominal (DP) or as an incorporated noun. In some cases, the nominalizer is required for noun incorporation only and not for the formation of a DP. The converse, in which the nominalizer is required to form a DP, but is not required for noun incorporation is not attested. We exploit this asymmetry to examine the categorization properties of lexical roots, concluding that some roots in Onondaga are categorically specified, while others are truly bare.

**Background:** The issue of the category of roots has come under much recent discussion. The traditional notion holds that roots are inherently specified for category (dog is a noun; run is a verb). This has been challenged (Borer 2005; Marantz 2001) with an alternative hypothesis that roots are not encoded for categorial specification. Finally, Kayne (2009) has proposed that all lexical roots are inherently nouns and that verbs are derived from a nominal root plus a verbalizer. In light of this discussion we investigate how the facts surrounding the nominalizer in Onondaga (bolstered by similar facts from other Northern Iroquoian languages) impinges on the categorial identity of lexical roots.

**Empirical Facts:** Full nominals in Onondaga typically consist of a root, a nominal prefix and a nominal suffix. The suffix in Onondaga typically indicates the noun class; however, in other Northern Iroquoian languages the suffix is often arbitrary. Furthermore, the noun root can be incorporated. In the case of noun incorporation the nominal prefix and suffix just described are absent. Here is a typical example (Woodbury 1975).

1. a. waʔ- ha- hninu -ʔ neʔ o- yekw -a?
   FACT-3.SG.M.AG- buy- PUNC NE 3.SG.NT- tobacco -NFS
   ‘He bought the tobacco.’
   b. waʔ- ha- yekw- a- hninu -ʔ
   FACT-3.SG.M.AG- tobacco- EPEN- buy -PUNC
   ‘He bought tobacco.’

When a verbal root is used as a noun or is incorporated, it typically appears with a nominalizer (Woodbury 2003).

2. a. ho- at-a’ti-tshR- ot-a?
   3.SG.M.PAT-SRFL-lean-NZRL-stand.upright/have-STAT
   ‘He is using a cane.’
   b. Ø- at-a’ti-tshR-a’
   NPREF-SRFL-lean-NZLR-NFS
   ‘cane/crutches’

Finally, we see instances where the nominalizer is required only with the noun incorporating form while it does not require it in the full DP (Woodbury 2003).

3. a. yok-atšiʔ-?
   IDU.PAT-friend-NFS
   ‘my friend’ / ‘we two are friends’
   b. ha-atsi-hšR-a-yę-k
   3SG.M.AG-friend-NZLR-JOIN-know.how-HAB
   ‘He knows how to be friends.’

Corroborating data are found in other Northern Iroquoian languages but are not included here for lack of space. As noted above, what is not found are instances where the nominalizer is found in a full DP, but is not found with noun incorporation.

**Analysis:** An important part of our analysis relies on the following observation from (2)b. Note that the noun class suffix (NFS) appears outside the nominalizer. We propose that the categorizing head (NZLR) is lower than the noun class suffix head (NFS, which we call nCL). Thus, we assume an extended nominal projection in the sense of Grimshaw (1990) with a partial structure as follows. We assume the nominal prefix heads a higher functional projection, but it does not impinge on the current discussion.

4. DP > … > nCL > nNZLR > root
With this observation in mind, we believe the facts above fall out if we assume the following two postulates.

I. A verb requires a complement that is categorized as a nominal (or a CP).
II. A full DP possesses a nCl, which requires a categorized complement.

Regarding the first postulate, this makes the uncontroversial assumption that the verb selects a full DP complement or a reduced nominal. The second postulate is novel and builds on the observation that full DPs require a nominalizer some of the time.

We now present our analysis. These facts fall into place if we assume that some roots are pre-specified as nouns, some roots are pre-specified as verbs, and some roots are truly acategorial. The following chart summarizes the three scenarios above.

<table>
<thead>
<tr>
<th>Root</th>
<th>Category</th>
<th>full DP</th>
<th>Noun Incorporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>tobacco</td>
<td>N</td>
<td>no NZLR</td>
<td>no NZLR</td>
</tr>
<tr>
<td>friend</td>
<td>V</td>
<td>no NZLR</td>
<td>NZLR required</td>
</tr>
<tr>
<td>lean</td>
<td>bare</td>
<td>NZLR required</td>
<td>NZLR required</td>
</tr>
</tbody>
</table>

Consider first the formation of a DP. The nominalizer is required only for acategorial roots. Following postulate II, a full DP has a noun class suffix, which requires a categorized complement. The complement could be either nominal or verbal, but it must be one of the two. Evidence that a verbal complement is possible in DPs is offered by the following Oneida example (Michelson & Doxtator 2002).

(5) o-hnek-a-kli-?
    NPREF-liquid/liquor-JOIN-be.a.liquid-NFS  'broth, watery soup'

Turning now to noun incorporation, the nominalizer is absent only when the incorporated root is pre-specified as nominal, as predicted by postulate I.

We do not have enough space to argue against all the other hypotheses on the categorization of roots mentioned in the background above; nevertheless we briefly address the bare root hypothesis (Marantz/Borer) as it has gained much theoretical currency. Assuming that roots must eventually be categorized it is unclear why the nominalizer is not always overt in all DPs and noun incorporation constructions. Assuming bare roots forces the following analysis.

<table>
<thead>
<tr>
<th>Root</th>
<th>Category</th>
<th>full DP</th>
<th>Noun Incorporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>tobacco</td>
<td>bare</td>
<td>null n</td>
<td>null n</td>
</tr>
<tr>
<td>friend</td>
<td>bare</td>
<td>null n or v</td>
<td>overt NZLR</td>
</tr>
<tr>
<td>lean</td>
<td>bare</td>
<td>overt NZLR</td>
<td>overt NZLR</td>
</tr>
<tr>
<td>unattested</td>
<td>bare</td>
<td>overt NZLR</td>
<td>null n</td>
</tr>
</tbody>
</table>

There is possibly null categorizing head in some cases; however, this would leave unexplained the asymmetry above. That is, it leaves unexplained why the noun incorporation construction could not be derived with a null nominalizer while the DP is derived with an overt nominalizer.

**Conclusion:** We have examined the distribution of the nominalizer in Onondaga with brief mention of Oneida, another Northern Iroquoian language. We have shown that the distribution of the overt nominalizer in full DPs and noun incorporation constructions is problematic for the Marantz/Borer hypothesis that all roots are category neutral. Instead, we have proposed that some roots are categorically specified as either nouns or verbs, while others truly are bare.

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**References**


