ARGUMENT STRUCTURE OF ONEIDA KINSHIP TERMS

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Oneida (Iroquoian) kinship terms have both nominal and verbal properties, and the verbal nature of kinship terms explains why both arguments of the relation are morphologically expressed. However, the linking of the arguments of some kinship terms to pronominal prefixes is qualitatively different from the linking of the arguments of verbs to pronominal prefixes in that the linking does not follow from the meaning of the kinship term but from the age of the actual persons who are related. Moreover, although kinship terms share properties with both verbs and nouns, they also have a more typical “nominal” function in that they semantically identify a member of the kinship relation as referent rather than denote the relation itself. This lexical specification of a relation member as the word’s index argues against an internally headed relative clause analysis of the kinship terms.

[KEYWORDS: Iroquoian, kinship terms, argument structure, linking, parts of speech]
1. Introduction. Kinship terminology in Oneida is a rich and complex system. Most stems require pronominal prefixes that realize or mark both arguments of the kinship term as do verbs, but their morphological class is far from clear. The principles that account for the selection of pronominal prefixes for kinship terms differ, sometimes qualitatively, from those operative for verbs in Oneida, or for subject and object selection cross-linguistically. Finally, the referent of kinship terms is sometimes part of the lexical meaning of the term and sometimes determined from the context. By focusing on this complex corner of the Oneida lexicon, this paper sheds light on fundamental issues in the interface between the lexical semantics and morphosyntax of kinship terms.

A primary purpose of morphosyntax is to map semantic representations onto surface expressions. At least two kinds of principles are involved in this mapping. One set of principles, which we call *dependency constraints*, determines whether an argument of a predicate is realized morphosyntactically. Transitive verbs, for example, typically realize both of their semantic arguments, as in (1). In English, both arguments are realized as independent pronouns, while in Oneida they are realized with obligatory bound morphemes.\(^2\)

\[(1) \text{waʔ-shako-hnútlα-neʔ} \]
\[\text{FACTUAL.MODE-3MASC.SG>3FEM.SG-catch.up.to-PUNC.ASP} \]

‘he caught up to her’

In Oneida, both of the semantic arguments of kinship terms are realized in the same way as transitive verbs; the kinship term in (2) has the same pronominal prefix as the verb in (1). However, in English, nouns with two semantic arguments, i.e., relational nouns such as kinship terms, realize only one of their semantic arguments morphosyntactically: the possessor (e.g., ‘his’ in 2). The other argument (e.g., ‘granddaughter’) corresponds to the referent of the entire NP. (For reasons that will become clearer in 4 below, we adopt the following convention when glossing Oneida kinship terms. We name the kinship relation by listing the members of the relation and underline the member of the relation that corresponds to the kinship term’s referent. Thus *grandparent-grandchild* stands for the kinship relation that holds between a grandparent and a grandchild when the grandchild is the kinship term’s referent, while *grandparent-grandchild* stands for the kinship relation

\(^2\) In the examples in this paper, pronominal morphemes are given as whole, portmanteau-type units, as is usual in current Iroquoian studies. Some segmentation is possible though, and a very detailed analysis into component morphemes is presented in Lounsbury (1953). Whether the pronominal affixes realize a head’s arguments or are mere morphological marks of their realization is a matter of debate (see Mithun 1986 vs. Baker 1996). Since this issue is orthogonal to the topic of the paper, we use the more common term *realize* for convenience.
that holds between a grandparent and a grandchild when the grandparent is the kinship term’s referent.)

(2) shako-tléha
   3MASC.SG>3FEM.SG-grandparent-grandchild
   ‘his granddaughter’

A one-place verbal predicate like the verb jump realizes its single argument as an independent morpheme, e.g., a pronoun, as in she jumped. A two-place verb realizes both of its arguments morphosyntactically, as in she hugged him. In contrast, a one-place noun like dog does not realize its single argument as an independent morpheme from the word dog, and a two-place relational noun like brother realizes only one of its arguments as an independent morpheme, typically the possessor, as in my brother. It seems that in most languages, nouns consistently leave unrealized one of their semantic arguments (the so-called R argument in Higginbotham 1985). Interestingly, Evans (2000) has found that in languages where both arguments of kinship terms are realized similarly to arguments of transitive verbs, the kinship terms are in fact almost always verbs. Thus Oneida kinship terms like those in (2), where both arguments of the relations are realized morphosyntactically, raise the question in (3).

(3) Do dependency constraints universally differ for verbs and nouns; in all languages do relational nouns realize morphosyntactically one argument less than semantically bivalent verbs? Or, are there languages where both arguments of relational nouns are realized morphosyntactically, and therefore nouns are subject to the same constraints as verbs?

The second set of principles, which we call LINKING CONSTRAINTS, determines the links between the semantic arguments of a head and the morphosyntactic realization of the arguments. For example, in (1) the argument with more proto-agent properties is linked to the agent pronominal position in Oneida (and to the subject position in English), while the argument with more proto-patient properties is linked to the patient pronominal position in Oneida (and to the object position in English; see Dowty 1991). Nouns generally refer to properties other than proto-agent or proto-patient, such as part–whole relations, including possessors (Barker and Dowty 1993). This raises the question in (4).

(4) Do the linking constraints for nouns make reference to distinct kinds of properties from the linking constraints of verbs, i.e., are the constraints for verbs and nouns qualitatively different?
A description of kinship terms in Oneida increases our understanding of these principles. The complex structure of the kinship terms shows also that issues relating to the two sets of principles must be kept distinct. Our conclusions are the following: First, kinship terms in Oneida share morphosyntactic properties with both the class of nouns and the class of verbs, and we conclude that Oneida does not provide a counterexample to the putative universality of different dependency constraints for nouns and verbs. Second, the linking constraints of some Oneida kinship terms are qualitatively different from linking constraints of verbs in that these constraints do not reference properties that hold because of the meaning of the verb. Third, aside from their part-noun, part-verb morphosyntax, kinship terms also have a more typical “nominal” function in that they identify a referent rather than denote a relation. Thus from a semantic perspective, the fact that the referent is lexically identified with a MEMBER of the relation reinforces the “nominal” nature of kinship verbs.

2. Nominal vs. verbal morphology of Oneida kinship terms. As expected, kinship terms in Oneida can serve as referring expressions in discourse. Examples are lake?nɪha ‘my father’ in (5) and aknulhá- ‘my mother’ in (6).

(5) Né·n, só·tsi? yukwa-tyohk-wantí, kayé kwí- so.then too.much 1PL.PAT-crowd-be.big(STAT.ASP) four link ni-yáky-u-? Wálte khále? Tsyó PART-1PL.AGT-be.an.amount-STAT.ASP Walter and Joe khále? i- khále? lake?-nɪha. and me and 3MASC.SG>1SG-father-child

‘So then there were too many of us, there were four of us, Walter and Joe and me and my father’.


‘My mother was going along, probably these woodcutters hired her to cook for them’.
But the role of kinship terms in discourse does not necessarily establish the part of speech of kinship terms, as referring expressions in Oneida can be morphological nouns or morphological verbs. In (6), for example, *latiyanakwas* ‘woodcutters’ has all of the characteristic morphology of a verb, including an incorporated noun and an aspect suffix.

In this section, we describe the verbal and nominal morphology of Oneida kinship terms. In the first part of the section, we identify three properties that kinship terms share with morphological nouns. In the second part, we identify properties that kinship terms share with verbs, and we conclude that it is these properties that account for the similarities that kinship terms share with verbs in how the semantic arguments of their denotata are realized. In the third section, we suggest an analysis of Oneida part-of-speech categories that models the nominal and verbal properties of kinship terms.

2.1. Noun-like morphology of kinship terms. Most kinship terms share three morphological or syntactic properties with nouns in Oneida. The first has to do with a morphophonological difference between pronominal prefixes that occur with verbs vs. nouns. The second has to do with the post-stem morphology that typically occurs with nouns vs. verbs. The third pertains to how kinship terms are negated, as negation is expressed differently depending on whether the focus of the negation is a noun or a verb.

In Oneida, as in other Iroquoian languages, the semantic arguments of nouns and verbs are realized via pronominal prefixes (Mithun 1986). The prefixes are usually described as belonging to four distinct categories—agent, patient, transitive, and possessive. The distribution of the prefixes is complex, and there are upward of 60 prefixes. A characteristic property of nouns in Oneida is that although they have prefixes that are similar to the intransitive agent and patient pronominal prefixes that occur with verbs, on nouns

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3 In most previous references to kinship terms in Iroquoian, kinship terms have been described as being based on verb stems, so from an Iroquoianist perspective the verbal properties of Oneida kinship terms are unsurprising. An early, and very detailed, description of Mohawk kinship terms is chapter V of Cuq (1866); there he states: “Les noms, ou pour mieux dire, les verbes de parenté et d’affinité (puisqu’ils se construisent avec les préfixes verbaux) se conjuguent . . .” (1866:141). Sapir (1917:88) writes: “That personal relation, not possession, is primarily expressed by the possessive pronominal affixes of relationship terms, is beautifully illustrated by the Iroquois usage of expressing many such relations as transitive verbs. . . .” Chafe (1963:20), writing on the kinship terminology of Seneca, says: “Nearly all the kinship terms consist of a verb stem denoting a particular relationship, preceded by a pronominal prefix that specifies the member or members of the relationship referred to.” See also Chafe (1967), where kinship terms are designated as verb stems. Mithun (1995:634) says about Mohawk: “Kinship, for example, is generally expressed by means of stative verbs that relate participants.” Interestingly, Boas (1909:457) writes about Oneida: “These terms of relationship have curiously developed possessive forms which are neither quite nominal nor quite verbal.” Mithun (2000) discusses a number of properties that Iroquoianists have relied on to distinguish nouns from verbs, including those we discuss in this section.
most prefixes lack an initial glide. Specifically, all patient prefixes and the formally related possessive prefixes lack an initial glide. Examples of nouns with patient or possessive prefixes are given in (7a) and (8a), with corresponding verbal patient prefixes exemplified in (7b) and (8b). (The possessive prefixes are also discussed in 2.2 below.) The absence of the glide in nouns is indicated by surrounding the glide in parentheses in the segmented versions of the examples. The feminine-zoic singular and neuter agent prefix also lacks the initial glide; thus the noun in (9a) has no overt prefix. (The other agent prefixes that begin in a glide retain the glide: the first-person exclusive dual *yakni/-yakn/-yaky-*, the first-person exclusive plural *yakwa/-yakw/-yaky-*, and the feminine-indefinite singular *ye-/yak-/yu-*.)

(7a) ohté·la?
    (y)o-hthel-a?
    3NEUT.SG.PAT.NOUN.PREFIX-root-NOUN.SUFFIX
    ‘root’ (e.g., carrot)

(7b) yokánolú
    yo-kanol-u
    3NEUT.SG.PAT-rain-STAT.ASP
    ‘it’s raining’

(8a) akohwísta?
    (y)ako-hwist-a?
    3FEM.SG.POSS-money-NOUN.SUFFIX
    ‘her money’

(8b) yako-ní.-u
    yako-ní?-u
    3FEM.SG.PAT-be.stingy-STAT.ASP
    ‘she is stingy’

(9a) áskwa?
    (w)-askw-a?
    (3NEUT.SG.AGT.NOUN.PREFIX)-bridge, roof, hut-NOUN.SUFFIX
    ‘bridge, etc.’

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4 The distribution of the various allomorphs of pronominal prefixes depends on the following initial segment of the stem; see Abbott (2006), Lounsbury (1953), or Michelson and Doxtator (2002) for details. Mohawk also lacks glides initially on nouns, including the glide of the feminine-indefinite singular agent prefix. It is unclear whether nouns lack the glide only when word-initial since nouns typically do not occur with any prefixes before the pronominal prefix.
Some words that designate human animates, mainly some symmetric kinship terms but also words for ‘friend’ and ‘old person’, take intransitive patient prefixes. Some examples are given in (10). With symmetric terms the non-singular patient prefix expresses both members of the kinship relation, not unlike the subject Jeff and Susan in the English sentence Jeff and Susan met. This is indicated in the first translation in each of the examples in (10a)–(10e). English translations with a singular possessor (e.g., ‘my brother-in-law’) are also given; these represent the possible interpretation of these terms where the referent is one member of the set. Typically, a later reference in the discourse picks up a subset of the term, as in the excerpt in (11) below. We call these kinship terms dyadic kinship terms, after the discussion in Evans (2006), and we sometimes call the patient prefixes that occur with these stems dyadic patient prefixes to remind readers that the patient prefix realizes both arguments of these kinship terms. As with the nouns in (7)–(9), initial glides are absent, indicated in the examples by parentheses around the glide in the segmented versions.

(9b) wahétkλa
    w-ahetκλ-?
    3NEUT.SG.AGT-be.broken.down-STAT.ASP
‘it’s broken down, in poor condition’

(10a) ukyatyóha
(y)uky-atyoha
1DUAL.PAT-be.brothers-in-law
‘we two in a brother-in-law relation; my brother-in-law’

(10b) onalyéha
(y)on-alyeha
3ZOIC.NONG.SG.PAT-be.sisters-in-law
‘they sisters-in-law; her sister-in-law’

(10c) ukwatanoʔsáha
(y)ukw-ataʔnoʔsáha
1PL.PAT-be.different-sex.siblings
‘we siblings; my brothers, my sisters’

5 Two of the terms, -atλoʔ ‘be friends’ and -atsnoʔsáha ‘be different-sex siblings’, occur also with agent prefixes, with no apparent difference in meaning. (For a selection of attested inflected forms of these stems, see Michelson and Doxtator 2002.)

6 Note Cuoq (1866:142) in his detailed description of Mohawk kinship terms: “Les mots qui expriment cette sorte de parenté ou d’affinité ne s’emploient qu’au duel et au pluriel, jamais au singulier. Ainsi Philippe dira à son soeur Anne: Tiattennoseha, ma soeur, c.-à-d. nous deux sommes frère et soeur.”
(10d) *ukyalá·se?
     *(y)*uky-alá*se?  
1DUAL.PAT-be.cousins
   ‘we cousins; my cousin’

(10e) *onatl-ó.\  
     *(y)*on-ataló?  
3ZOIC.NONSG.PAT-be.friends
   ‘they friends; her friend’

(10f) *akokstíha\  
     *(y)*ako-kstíha  
3FEM.SG.PAT-be.an.old.person
   ‘old woman’

(11) *Uky-atyóha, kwahiká tsi?  
    1DUAL.PAT-be.brothers-in-law just really that
    *la-u?weskwaní-hahkwe?  
    3MASC.SG.PAT-enjoy-HAB.PAST
    *a-h-ato·lát-e\.\  
    OPT-3MASC.SG.AGT-hunt-PUNC.ASP
   ‘My brother-in-law really used to like to hunt’.

Most kinship terms occur with prefixes that otherwise are identical to transitive prefixes that occur with verbs that have two semantic arguments. As with the patient prefixes exemplified in (10) above, some of the transitive prefixes with an initial glide—those with *(w)* or *(y)* in table 1—lack the glide with kinship terms. Terms with the feminine-zoic never occur with the glide (e.g., *ak-, o-, ako-\). The feminine-indefinite form *yutat-*, with the glide, does occur but it is infrequent as compared with the form without the glide *utat-;* otherwise feminine-indefinite prefixes retain the glide (e.g., *yuk-\).\ The

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7 The use of the traditional Iroquoian terms Agent and Patient in table 1 is not strictly semantic and is more akin to the notion of Generalized Semantic Roles discussed in Van Valin (1999) or, in old Relational Grammar terms, initial 1 and 2 (Perlmutter and Postal 1984). See also Mithun (1991).

8 In the Wisconsin dialect of Oneida, there appears to be more variability in the distribution of the glide, and some of the forms in (10) as well as some kinship terms that take the prefixes in table 1 tend to retain the glide (Cliff Abbott, p.c.). In addition, kinship terms that in Ontario Oneida (and most other Northern Iroquoian languages) have the feminine-zoic prefix *o-* have the feminine-indefinite *ako- in Wisconsin (e.g., *akohsótha ‘her grandmother’ in place of *ohsótha). That the forms without an initial glide have been stable in Ontario for some time is suggested by forms that occur without an initial glide in the transcription by Floyd Lounsbury in 1971 of a lengthy narration by Damas Elm, then 93 years of age. A copy of the transcription, in longhand, was kindly made available by Cliff Abbott.
<table>
<thead>
<tr>
<th>AGENT</th>
<th>1SG</th>
<th>2SG</th>
<th>3MASC.SG</th>
<th>3ZOIC.SG</th>
<th>3FEM.SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>khe/-khey-</td>
</tr>
<tr>
<td>2SG</td>
<td>sk/-sk/-skw-</td>
<td>li/-liy-</td>
<td>etsh/-etshe-</td>
<td>she/-shey-</td>
<td></td>
</tr>
<tr>
<td>3MASC.SG</td>
<td>lak/-lake/-lakw-</td>
<td>ya/-lyyay-</td>
<td>lo/-llaw/-lla-</td>
<td>shako/-shakaw/-shaka-</td>
<td></td>
</tr>
<tr>
<td>3ZOIC.SG</td>
<td>(w)ak/(w)ake/(w)akw-</td>
<td>sa/-ls-</td>
<td>(y)o/(y)aw/(y)a</td>
<td>(y)ako/(y)akaw/(y)aka-</td>
<td></td>
</tr>
<tr>
<td>3FEM.SG</td>
<td>yuk/-yuue/-yuukw-</td>
<td>yesa/-yesay-</td>
<td>luwa/-lluw/-lluway-</td>
<td>(y)utat/(y)utate-</td>
<td></td>
</tr>
</tbody>
</table>
distribution of the two feminine genders, the feminine-zoic (ZOIC) and fem-
nine-indefinite (FEM), is described in Appendix A; basically, ZOIC is used
with terms that specify the older member, while FEM is used with terms that
specify the younger member. Table 1 does not include all the possible tran-
sitive prefixes that occur with kinship terms; in particular, it does not include
prefixes with a plural agent or patient as kinship terms with these prefixes
generally occur less frequently (e.g., shukwa-hsótha, 3MASC.SG>1PL-grand-
parent-grandchild ‘our grandfather’). It should be noted that the transitive
prefixes in table 1 with a feminine-zoic argument are identical to (intransi-
tive) feminine-zoic patient prefixes, i.e., the feminine-zoic is not overtly
marked. For example, the form lo- is both a transitive prefix marking two
arguments (feminine-zoic singular and masculine singular) and a patient pre-
fix marking only one argument (masculine singular argument). These pre-
fixes are analyzed as transitive prefixes rather than patient prefixes because
in most of the rest of the paradigm the arguments of kinship terms are
marked by transitive prefixes. Prefixes where both arguments are first or
second person are less frequently attested; elicited examples are given in
n. 22 below. Some examples of kinship terms are given in (12) below; see
also Appendix B.

(12a) onulhá·
   (y)o-nulha?
3ZOIC.SG>3ZOIC.SG-mother-child
‘her mother’

(12b) aksótha
   (w)ak-hsotha
3ZOIC.SG>1SG-grandparent-grandchild
‘my grandmother’

(12c) utatatléha
   (y)utat-atleha
3FEM.SG>3FEM.SG-grandparent-grandchild
‘her granddaughter’

(12d) lake?níha
   lake?-níha
3MASC.SG>1SG-father-child
‘my father’

(12e) liyáha
   li-ysha
1SG>3MASC.SG-father-child
‘my son’
Two kinship terms, -nulha? ‘mother-child’ and -hsotha ‘grandparent-grandchild’, take transitive prefixes for some combinations of person and number, as in (12a) and (12b). For other combinations, specifically when both members of the relation are third person and the member that is not referred to by the stem is plural, they take a single dyadic patient prefix that expresses both arguments of the kinship relation (in which case they behave like a dyadic kinship term; see the examples in 10). Examples with patient prefixes are given in (13).

(13a) lotihsótha
loti-hsotha
3MASC.PL.PAT-be.grandparent-grandchild
‘their grandparents, their grandfather, their grandmother’

(13b) lotinulhá-
loti-nulha?
3MASC.PL.PAT-mother-child
‘their mother’

(13c) otinulhá-
(y)oti-nulha?
3ZOIC.PL.PAT-mother-child
‘their mother’

We can analyze the lack of initial glide either by positing a morphophonological rule that deletes initial glides or by positing two sets of affixes with each set selecting or being selected by different stems (nominal stems vs. verbal stems). Both solutions require reference to a different morphological class from that of typical verbs.

A second morphological property of most Oneida kinship terms is that they end in the diminutive clitic -ha/-a? (already noted by Boas 1909:453; see Mithun 1995 on Mohawk). In most cases, the diminutive is easy to identify, as in -hsot-ha ‘grandparent-grandchild’, -?ni-ha ‘father-child’, or -atyo-ha ‘be brothers-in-law’. In other cases, the diminutive has undergone historical developments, such as the loss of the word-final vowel in -nulha-? < *-nulha-?a ‘mother-child’.9 The diminutive clitic is not a productive morpheme with Oneida stems, and it is usually lexicalized with specific nominals; however, it does occur more productively with borrowed nouns from English and with names (usually also borrowed). For example:

9The diminutive can be replaced by the decessive morpheme -kí, as in lake/nihkí ‘my late father’. The decessive is not an aspect suffix in Oneida, a conclusion that might be incorrectly drawn from the discussion of Cayuga in Evans (2000:129), based on personal communication with Hans-Jürgen Sasse.
A final property that is relevant for deciding on the morphological class of kinship terms is negation. There are two negation patterns in Oneida; when the focus of negation is a verb, a preverbal particle *yah* and a prefix *te*- on the verb are used, as in (15a); when the focus of negation is a noun, the preverbal particle *yah* and a separate word *té·kA* following the noun are used. When the focus of negation is a kinship term, the nominal pattern applies, as in (15b).

\[(15a)\] *yáh te*-wak-ata*kali-té·*  
**NEG NEG-1SG.PAT-feel.well:STAT.ASP**  
‘I’m not feeling well’

\[(15b)\] *yáh ki? nê· ak-nulhá·*  
**NEG EMPHATIC ASSERTION 3ZOIC.SG>1SG-mother-child NEG**  
‘She’s not my mother in fact’.

As with the pronominal prefixes, any description of the distribution of the diminutive and of negation patterns must make reference to the class of nominal stems. Taken together with the observation that kinship terms select transitive pronominal prefixes, this suggests that Oneida MIGHT be an example of a language in which all semantic arguments of some nouns (kinship terms) are realized, just like all arguments of verbs are. If true, this would answer the dependency question. The difference in the relation between semantic arguments and syntactic dependents in verbs vs. nouns would not be universal. At best it would be an extremely strong tendency. But that answer would be premature.

2.2. Verb-like morphology of kinship terms. As shown in the previous section, Oneida kinship terms have some nominal properties. But Oneida kinship terms also have properties characteristic of verbs, namely, as already noted, they select verbal pronominal prefixes (transitive prefixes or intransitive patient prefixes that realize both semantic arguments of kinship terms); examples were given in (2), (10), (12), and (13). Kinship terms do NOT take possessive prefixes that occur with morphological nouns.\(^10\) Possessive noun forms are given in (16) below, with additional examples of kinship terms in (17) for comparison. The possessive prefixes that occur with nouns identify a

\(^{10}\)Specifically, morphological nouns that are not body parts occur with the possessive prefixes; body-part nouns occur with agent prefixes that identify the possessor plus a locative suffix, e.g., *tni-nikwaʔ-t-é-ne* ‘our (inclusive dual) bellies’ (**INCLUSIVE.DUAL.AGENT-belly-LOCATIVE**).
possessor; as seen in the examples in (16) they lack an initial glide and they are also similar to the patient prefixes that occur on intransitive verbs, but the third-person masculine and feminine-zoic prefixes have an additional vowel (underlined in the segmented versions of the examples in 16), and certain first-person singular allomorphs have an additional \( w \) (also underlined). Crucially, although nouns that occur with a possessive prefix are always semantically bivalent (they describe relations between two entities), only one of the relata is expressed with a pronominal prefix, the argument that corresponds to the possessor.

(16a) akwá·shale?
    (w)akw-a’shal-e?
    1SG.POSS-knife-NOUN.SUFFIX
    ‘my knife’

(16b) laoto·kí·
    lao-atoka-?
    3MASC.SG.POSS-ax-NOUN.SUFFIX
    ‘his ax’

(16c) aotinúhsa?
    (y)aoti-nuhs-a?
    3ZOIC.NONSG.POSS-house-NOUN.SUFFIX
    ‘their houses’

(17a) liyatléha
    liy-atleha
    1SG>3MASC.SG-grandparent-grandchild
    ‘my grandson’

(17b) lo-yáha
    lo-yáha
    3MASC.CG>3MASC.CG-parent-child
    ‘his son’

(17c) otinulhá·
    (y)oti-nulha?
    3ZOIC.NONSG.PAT-mother-child
    ‘their mother’

One relational term, ‘be friends’, can occur both with a possessive nominal prefix when nominalized, as in (18a) below, and (more frequently) with patient prefixes, as in (18b) and (10e).
(18a) laotāló-slaʔ?
   lao-atlō-ʔsl-aʔ?
   3MASC.SG.POSS-be.friends-NOM-NOUN.SUFFIX
   ‘his friend’

(18b) lonatā-ló-
   lon-atlōʔ?
   3MASC.NONSG.PAT-be.friends
   ‘they (are) friends; his friend’

The possessive prefix on the term ‘be friends’ occurs only after the stem has been nominalized, which indicates that the use of the term ‘be friends’ in (18b), without the nominalizer and with a patient prefix, is verbal.11 The stem for ‘be friends’ is also negated like a verb: yāh nē· tehonatā-ló· ‘they are not friends’ (see 15a). In the negated form just cited, the stem for ‘be friends’, -atlōʔ?, occurs, as expected, without the nominalizer and with a patient prefix.

The dyadic kinship terms given in (10a)–(10d) begin in what is probably the semireflexive or middle morpheme, which has a number of allomorphs including -at-, -al-, and -a-. This morpheme has been lexicalized as part of the stem in most cases, but at least the stem -alaʔseʔ ‘be cousins’, given in (10d), occurs without the initial -al- in the salutation Kyāhse ‘Cousin!’ (with regular replacement of the first ? by h). If the analysis of these dyadic terms as verb stems is correct, then it is interesting that the stem meaning ‘be friends’ can occur, when nominalized, with possessive prefixes that otherwise occur only on morphological nouns and also with patient prefixes (minus the initial glide) that otherwise occur with intransitive verbs. This means that the nominalized stem that occurs with possessive prefixes is a “true” noun, and only one argument is realized morphosyntactically (by the possessive prefix), while the verb stem realizes both arguments morphosyntactically (by the dyadic patient prefix).

11 Two semantically relational terms, ‘girlfriend’ and ‘boyfriend’, are noun stems that are derived from verbs by the addition of the nominalizer morpheme. Like the form for ‘friend’ in (18a), the nominalized stems occur with possessive prefixes, as in laoyaʔtasé-tsliʔ (lao-yāʔtas-ase-ʔtsliʔ 3MASC.SG.POSS-body-be.fresh.new-NOM-NOUN.SUFFIX) ‘his girlfriend’ and akonikatsliʔ (ako-nikhsht-tsliʔ 3FEM.SG.POSS-be.handsome-NOM-NOUN.SUFFIX) ‘her boyfriend’. Unlike the stem meaning ‘be friends’, the relational meaning occurs only with the nominalized stems; cf. a-kaʔtasé-hak-eʔ (OPT-1SG.AGT-be.pretty-CONTINUATIVE-PUNC.ASP) ‘I should be pretty’. It is interesting, though, that like kinship terms, these two stems can occur with the diminutive (and no aspectual marking) and agent (rather than possessive) prefixes: yeyaʔtasēha ‘a young woman, an (older) adolescent female’, lanikshhlůha ‘a young man, an (older) adolescent male’.
A verbal morpheme that is related to the semireflexive or middle is the (full) reflexive MORPHEME -atat-; this derivational morpheme can also occur with some kinship stems, as in (19).12

(19) onatayáaha
     (y)on-at-ayáaha
     3ZOIC.NONSG.PAT-REFLEXIVE-parent-child
     ‘mother and daughter’

The verbal nature of most kinship stems is established perhaps most convincingly by the fact that kinship stems can be incorporated into verbs only if they are nominalized. Thus in (20a) and (20b), the stem -atleha ‘grandparent-grandchild’, minus the diminutive clitic -ha, occurs with the nominalizer, which otherwise makes a verb stem available for incorporation. In (20c) and (20d), the stems -?niha ‘father-child’ and -hsotha ‘grandparent-grandchild’, minus the diminutive clitic -ha, are also followed by the nominalizer and incorporated.13 And in (20e), the stem -at?ono?sha ‘be different-sex siblings’, which otherwise occurs with a dyadic patient prefix (see 10c), is nominalized and incorporated.

(20a) lonatléslayá?
lon-atle-?sl-a-ya-?
     3MASC.NONSG.PAT-grandparent-grandchild-NOM-EPEN-have-STAT.ASP
     ‘they have a grandchild’

(20b) tó- níka satle-šá?
tó- níka sa-atle-?sh-a-?
     how.much amount 2SG.PAT-grandparent-grandchild-NOM-have-STAT.ASP
     ‘How many grandchildren do you have?’

(20c) yah tehö?nišá?
yah te-ho-?ni-sh-a-?
     NEG NEG-3MASC.SG.PAT.-father-child-NOM-have-STAT.ASP
     ‘he has no father’

12 It is not clear why the addition of the reflexive morpheme results in the meaning ‘mother and daughter’ (see Evans 2006 for a discussion of this type of dyadic meaning). Possibly, since terms that typically specify the younger member of a relation can also be used for the older member (see 4), the reflexive has the effect of combining the younger (child) with the older (parent) members.
13 Thanks to Marianne Mithun (p.c.) for identifying the verb root in the examples in (20b)–(20e) based on examples in Mohawk similar to (20b).
(20d) yah te’ynamhsotsha?
yah te’-yako-hsot-sh-a-?
NEG NEG-3FEM.SG.PAT-grandparent-grandchild-NOM-have-STAT.ASP
‘she has no grandmother, she has no grandfather’

(20e) yonato’sa’tahkwe?
yon-at-o’sa-tahkwe?
3ZIOC.PL.PAT-be.different-sex.siblings-NOM-have-HAB.PAST
‘they had a brother’

These properties (selection of transitive pronominal prefixes, incorporation only after nominalization, possible affixation of the reflexive morpheme) suggest that kinship terms in Oneida belong to the class of verbal stems when it comes to argument realization and that their membership in the class of verbal stems explains the similarity to verbs in the way they realize their arguments.

To end this section we mention, for completeness, two stems that have only verbal properties: -atahnutelu? (or -atahnutele? for some speakers) ‘be same-sex siblings’ and -nuhelakhwa? (or nuhwelakhwa? for some speakers) ‘aunt-niece’ (literally, ‘greet someone’).

(21a) teyakwatahu-téle?
te-yakw-atahnutel-e?
DUALIC-1EXCLUSIVE.PL.AGT-be.same-sex.siblings-STAT.ASP
‘we are brothers or sisters; my brothers, my sisters’

(21b) tekhenuhelatúkhwa?
te-khe-nuhelatu-khwa?
DUALIC-1SG>3FEM.SG-greet.thank-INSTR:HAB.ASP
‘my niece, I’m her aunt’

2.3. Are Oneida kinship terms morphological nouns or verbs? We have seen that Oneida kinship terms pattern both like nouns (lack of initial glide, diminutive clitic rather than aspect suffixes) and like verbs (transitive prefixes that occur with verbs, incorporation after nominalization, reflexive morpheme). We represent the classes of Oneida words in (22); the representations are informal to abstract away from differences between specific models of morphological structures and processes; we use K, for now, to stand for the actual part of speech of kinship terms.

(22a) \( V \ [pro_{A,B}-V_{stem}] \text{-ASPECT} \)
(22b) \( N \ [pro_{B,C}-N_{stem}] \text{-NOUN SUFFIX, DIM} \)
(22c) \( N \ [pro_{A,B}-K_{stem}] \text{-DIM} \)
The representation in (22a) gives the structure of typical verbs. Verbs are based on verbal stems, and as is typical of verbs, all syntactic dependents of the verbs are realized by pronominal prefixes. When the stem has two semantic arguments and is morphosyntactically transitive, both arguments are realized by the pronominal prefix. Transitive prefixes are indicated by the subscript \(a\) in the representation in (22a), and (intransitive) agent and patient prefixes are indicated by the subscript \(b\). Moreover, the verb has aspectual marking, and there is no omission of a glide, indicated by the absence of italics on \(pro\) in (22a).

(22b) represents the structure of typical nouns. Nouns are based on nominal stems which select (intransitive) agent or patient prefixes (most often, neuter), indicated with subscript \(b\) in (22b), and possessive prefixes, indicated with subscript \(c\). The form of the pronominal prefixes lacks an initial glide, indicated by the italicization of \(pro\) in (22b). Nominal morphemes (such as the nominal suffix or the diminutive) occur rather than aspectual morphemes. Another important property shared by noun stems to the exclusion of verb stems is that only noun stems can be incorporated into verbs, as discussed with respect to the examples in (20). And, when nouns are the focus of negation, they can be followed by the separate word \(té·k\.\)

(22c) represents (most) kinship terms in Oneida. The stems are verbal in that they select pronominal prefixes typical of verbs, which means, crucially, that when the stem has two arguments semantically, properties of both arguments of the stem are realized by a transitive prefix or by a dyadic patient prefix that realizes both arguments at once. Additionally, like verbs, kinship terms cannot be incorporated without undergoing nominalization first, and some kinship terms are attested with derivational morphemes characteristic of verbal stems. However, the stems are also nominal in that they lack an initial glide and occur with nominal morphemes like the diminutive rather than requiring aspectual marking. Additionally, kinship terms pattern with nouns when they are the focus of negation.

Figure 1 represents the properties of nouns, verbs, and kinship terms in the form of a Venn diagram. As the figure makes clear, kinship terms share two properties with verbs and three with nouns. But additionally, in contrast to kinship terms, “true” noun stems can select possessive prefixes (\(C\)-prefixes)

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14 Note that we are talking here about typical morphological nouns. Oneida, like other Iroquoian languages, has a significant number (several hundred) of verbal nouns (designated \(V > N\) in Michelson and Doxtator 2002), which are words that have entirely the structure of morphological verbs but always function as referring expressions and usually are lexicalized to designate a specific type of object. They occur in one form only, so that they cannot, for example, take a different aspect suffix from the one that occurs in the lexicalized word. An example is \(ka·yaʔáklah·se’\) ‘goat’ with the structure \(3zoič.\,sg.\,agt-be.\,a.smelly.body-hab.asp\). Note that this word cannot refer to any smelly animal, only a goat.
and they can be incorporated into verbs; and in contrast to kinship terms, “true” verb stems occur with aspect suffixes. One possible model of the morphosyntactic behavior of Oneida stems is to posit three distinct and formally unrelated parts of speech in Oneida—verbs, nouns, and kinship terms—and list the properties shared by members of each class, as in (23a)–(23c). We list in (23d) and (23e) the “external” properties of nouns and kinship terms, that is, the two syntactic constructions that select for noun or kinship term. We use the terms NOUN, KINSHIP TERM, and VERB to stand for part-of-speech categories of both stems and words.

(23a) If a stem is a member of the class NOUN, it takes prefixes from the B and C sets of pronominal prefixes, the prefixes lack an initial glide, and the diminutive ending is appropriate.

(23b) If a stem is a member of the class VERB, it takes prefixes from the A and B sets of pronominal prefixes, it can have verbal derivational morphology, and aspectual endings are required.

(23c) If a stem is a member of the class KINSHIP TERM, it takes prefixes from the A and B sets of pronominal prefixes, the pronominal prefixes do not have an initial glide, and the diminutive ending is appropriate.

(23d) If the focus of negation is a NOUN or a KINSHIP TERM, the particle yah and a separate word té·ká following the noun or kinship term are used.
If a stem is incorporated, it must be a noun.

The drawback to this approach is that it does not reflect the relations between kinship terms and the other two parts of speech in Oneida; in particular, this approach does not acknowledge the fact that morphosyntactic properties of kinship terms are a subset of those of nouns and verbs. A more perspicuous model of the relation between parts of speech in Oneida (although certainly not the only model) is possible through a use of inheritance networks. Such networks have been used in a variety of grammatical frameworks to model shared information between lexical items (see Pollard and Sag 1987; 1994 for HPSG, Hudson 1984 for Word Grammar, and Goldberg 1995 for Construction Grammar). Our analysis of Oneida parts of speech is modeled after Malouf’s (2000) analysis of gerunds in English (and other languages). According to this view, part-of-speech categories can be organized into multiple hierarchies of more or less general classes. In the case of Oneida, the relevant super-classes are the class of stems whose pronominal prefixes lack an initial glide but can occur with the diminutive ending and, when they are the focus of negation, they are followed by the separate word té·kʌ, and the class of stems that take transitive or A-prefixes and allow verbal derivational morphology. The properties defining these two super-classes in Oneida are also characteristic of uncontroversial nouns and verbs and so we name these super-classes nominal and verbal. Crucially, kinship terms are members of the nominal class in addition to being members also of the verbal class.
This does not mean that kinship terms are both verbs and nouns in the traditional sense of the term. Rather, the class nominal is the super-class of all Oneida stems that contain “true” nouns and kinship terms, and the class verbal is the super-class of all Oneida stems that contain “true” verbs and kinship terms. The class of kinship terms, then, is the intersection of the class of nominal and the class of verbal stems. As shown in figure 2, “true” nouns are nominal stems that take possessive prefixes, i.e., prefixes that belong to class C; “true” verbs are verbal stems that require aspect suffixes. A simplified representation of the relevant portion of the hierarchy of part-of-speech categories in Oneida is given in figure 3.

Given the limited set of part-of-speech categories considered here, such a hierarchy is equivalent to a featural decomposition of part-of-speech categories of the kind introduced in Chomsky (1965). Nouns can be defined as [+N,−V], verbs as [−N,+V], and kinship terms as [+N,+V]. Assuming this hierarchical categorization of part-of-speech categories for Oneida, we can associate the co-occurrence restrictions we discussed with distinct categories in this part-of-speech hierarchy, as illustrated in implicational form in (24) below (compare to 23 above).

(24a) If a stem is a member of the class nominal, it takes intransitive agent or patient prefixes (i.e., the B set of prefixes), the prefixes do not have an initial glide, and the diminutive ending is appropriate.

(24b) If a stem is a member of the class verbal, then transitive (A) and intransitive agent and patient (B) pronominal prefixes are appropriate, and the stem can undergo verbal derivational processes.

(24c) If a stem is a member of the class noun, then possessive prefixes (C) are appropriate.

(24d) If a stem is a member of the class verb, then aspectual endings are appropriate.

(24e) If a stem is a member of the class kinship term, it is a member of the classes nominal and verbal.

(24f) If the focus of negation is a nominal, the particle yah and a separate word té-ká following the nominal are used.

(24g) If a stem is incorporated, it must be a noun.

![Diagram of part-of-speech hierarchy](image-url)
Figure 3 and the definition of part-of-speech categories provided by the statements in (24) explicitly represent the intermediate part-of-speech status of kinship terms in Oneida. For the dependency question we raised in the introduction, what is essential is that kinship terms belong to the same class of verbal stems as the stems on which ordinary verbs are based. That is, although Oneida kinship terms are also nominal stems, the fact that kinship terms realize both arguments is due to the verbal status of their stems, i.e., to their lexical membership in that class of stems. Data from Oneida therefore do not provide a counterexample to the claim that, universally, only $n-1$ arguments of relational nouns are realized as syntactic dependents, the $n^{th}$ argument being identified as the referent of the phrase headed by the noun. Although Oneida nouns, in contrast to nouns in most languages, do realize their R argument via a pronominal prefix, Oneida relational nouns (possessed nouns, in particular) only realize one of their two arguments morphosyntactically via pronominal prefixes and leave the R argument unexpressed. Oneida kinship terms realize or mark both of the kinship relation’s arguments like verbs do because both belong to the same stem class. The answer to the first question (in 3 above: Are there languages where both arguments of relational nouns, such as kinship terms, are realized morphosyntactically like the arguments of dyadic verbs?) is that Oneida is not such a language.

The verbal status of kinship terms raises the question of why kinship terms also share properties with nouns. The explanation we propose has to do with the fact that kinship terms pattern with other nouns in that they have a lexically specified index. That is to say, the lexical entry for the stem specifies which of the two members of the relation will be referred to when the stem is used in discourse. For example, when used in discourse, words based on the stem *-hsotha* ‘grandparent’-grandchild’ can refer only to the older member of the relation between grandparent and grandchild, while words based on the stem *-atleha* ‘grandparent-grandchild’ refer to the younger member of that same relation. It is this property that may account for the fact that in Oneida these words are in the same part-of-speech class as entity-denoting terms. We return to this issue in 4 below.

3. Linking rules for Oneida kinship terms. In this section, we address the second question raised in the introduction, the linking question, and discuss the constraints or rules that determine how the two arguments of kinship terms are mapped onto subject and object or Actor and Undergoer. We use

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15 We assume, as is traditional, that only NPs (or DPs) can refer. We use the term *index* to refer to the semantic argument of a noun that will correspond to the NP’s (or DP’s) referent. Note, additionally, that although we consistently talk about the referent of NPs or DPs, this is an oversimplification. Not all NPs (DPs) refer; in particular, quantified phrases such as *every father in the room* do not refer. In this case, the index of the noun *father* does not correspond to the referent, but rather is the member of the kinship relation being quantified.
the terms SUBJECT (actor) and OBJECT (undergoer) in an informal manner as cover terms for any ordering in the realization or marking of semantic arguments, whether the ordering is defined phrase structurally, as in Principles and Parameters approaches, or in some kind of obliqueness hierarchy, as in a Head-Driven Phrase Structure approach, or through keyword distinctions, as in Lexical Functional Grammar or Role and Reference Grammar. As mentioned in n. 7, Iroquoianists use the terms AGENT and PATIENT, and thus discussion of subject or object selection in Dowty (1991) or Actor/Undergoer selection in Van Valin and LaPolla (1997), for example, corresponds to a discussion of Agent/Patient selection in current usage among Iroquoianists. In this paper, the terms SUBJECT and OBJECT are used so as to draw comparison between the linking constraints operative in Oneida (and in particular in Oneida kinship terms) and the linking constraints operative in other languages.

Linking constraints for verbs are usually sensitive to lexical entailments, by which we mean that the selection of subject and object follows from the meaning of the verb. For a verb such as kill, the fact that it describes situations in which there is an entity causing a change of state (which is expressed by the subject of the active form of the verb) follows from the meaning of kill. As has been shown by Dowty (1991) and many others, arguments that are more agent-like in their semantic properties are normally realized morphosyntactically as subjects, while arguments that are more patient-like are normally realized as objects. Thus, in nominative–accusative systems, arguments that are causes are realized as subject, while arguments that undergo a change of state are realized as object. Alternatively, linking can be discourse-dependent, with perspective being the relevant factor, as in Canada borders the U.S. (as opposed to choosing to say the U.S. borders Canada). In this case, no property or set of properties in the situation described by the verb border are borne by the subject’s referent that are not borne by the object’s referent. Rather, the choice of which argument is mapped onto subject and object depends on the speaker’s or writer’s perspective, i.e., which entity is under discussion and so forth.

The set of properties relevant for typical situation-denoting stems differs from the properties relevant for typical relational nouns like kinship terms. Instead of proto-agent or proto-patient properties (e.g., being the cause of an effect, undergoing a change of state), other properties are relevant for the linking of arguments of nouns, and in Oneida two distinct properties are needed to accomplish the correct linking. One property refers to generation (Linking Rule I below) while the other refers to absolute age (Linking Rule II below).16 (See below also for a discussion of Barker and Dowty’s 1993 related, but distinct, proposal involving part–whole properties.)

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16 Cf. Lounsbury (1964:1082), who posits the features G (generation) and A (relative age); in Lounsbury’s analysis the feature A is relevant for the classification of Seneca hahtsiʔ ‘[my] elder brother’ and ahntsʔ ‘[my] elder sister’, as opposed to heʔkēkʔ ‘[my] younger brother’ and kheʔkēkʔ ‘[my] younger sister’. Cuq (1866:143), in his description of Mohawk terms, already made the observation stated in Linking Rule I. See also Kay (1975) and Evans (2000).
Oneida, like other Iroquoian languages (see, e.g., Chafe 1963 for Seneca), has specific stems that typically are used for older vs. younger members of relations when the members of the relation are one or two generations apart. For these terms, we propose the linking rule or constraint in (25).

(25) Linking Rule I (refers to generation): The argument that corresponds to the older generation maps onto the “subject,” while the argument that corresponds to the younger generation maps onto the “object.”

In other words, if a kinship relation entails that any filler of one of its argument positions belongs to an older generation than any filler of its other argument position, the first argument position is expressed as the subject (the agent in the pronominal prefix system of Iroquoian) and the second argument position is expressed as the object (the patient). Thus in (26a), the transitive prefix on the kinship stem is the same as the one for situations in which a third-person singular feminine-zoic argument acts on a first-person singular argument because the speaker is a member of the younger generation. Linking Rule I, like nonperspective dependent linking of verbs, makes reference to entailments that follow from the meaning of the stem. For example, my father necessarily belongs to a different (ascending) generation from me since the meaning of \textit{father-child} entails that the members of this relation are one generation apart. Examples that illustrate Linking Rule I with stems whose index is fixed lexically as the older generation member are given in (26).

(26a) \textit{ak-(h)sótha}  
\textit{3zoic.sg>1sg-grandparent-grandchild}  
‘my grandmother’

(26b) \textit{lo-nulhá}  
\textit{3zoic.sg>3masc.sg-mother-child}  
‘his mother’

Terms whose index typically corresponds to the younger generation member, such as ‘grandparent-grandchild’ and ‘parent-child’, use the same linking rule, so that the older generation member of the relation is still realized as the subject (agent) and the younger generation member is still realized as the object (patient). Examples that illustrate Linking Rule I with stems whose index is fixed lexically as the younger generation member are given in (27).

(27a) \textit{khey-atléha}\textsuperscript{17}  
\textit{1sg>3fem.sg-grandparent-grandchild}  
‘my granddaughter’

\textsuperscript{17} As mentioned in 4 in connection with the examples in (30), terms that typically specify the younger member can also be used for the older member, although this usage is infrequent. Thus
(27b) *luwa-yiha*

3FEM.SG>3MASC.SG-parent-child

‘her son’

Not all kinship stems in Oneida have a lexically fixed index that specifies only the older or only the younger member of a relation, and stems whose index is not lexically fixed and that are used for both older and younger members (e.g., the relation between an uncle and his nephew or niece) are discussed in 4 below. However, the stems whose index is fixed highlight the necessary dissociation between linking constraints and determining the referent or index. This point becomes clear in the context of Barker and Dowty’s (1993) proposal for the linking properties of relational nouns.

According to Barker and Dowty, linking of relational nouns (such as kinship terms, part–whole terms, and nouns like ‘friend’ or ‘enemy’) makes reference to Proto-Whole vs. Proto-Part properties (e.g., entirely containing the other relatum as a proper part vs. being a property of the other relatum). Following Dowty’s (1991) approach to linking, they propose further that whichever argument entails more Proto-Whole properties is realized as a syntactic dependent, and whichever argument entails more Proto-Part properties will correspond to the noun’s index (what they call the HEAD ARGUMENT). For example, in the phrase *Susan’s ear*, *Susan* has more Proto-Whole properties and so is the dependent, while *ear* has more Proto-Part properties and so is the head of the phrase (and the body part itself corresponds to the index of the phrase). In the case of pairs of kinship relations such as parent-child neither member has more Proto-Whole vs. Proto-Part properties, and they argue that in such cases two lexical items are predicted to exist (like *parent* and *child* in English). Nevertheless, as with all nouns, only one semantic argument is realized as a dependent (e.g., *Susan’s*) and the other argument corresponds to the head of the whole phrase (*parent in Susan’s parent or child in Susan’s child*). Oneida, like English and other languages, has distinct lexical items (e.g., *-niha ‘father-child’, -yuha ‘parent-child’), but in Oneida both semantic arguments are morphosyntactic dependents, and the linking that determines which dependent corresponds to subject vs. which dependent corresponds to object does not depend on the index specified in the meaning of the stem. If the linking were determined by the index of the stem, ‘mother’ would be linked correctly to the subject in (26b), but the child (‘son’) would be linked incorrectly to the subject in (27b).

Thus Oneida kinship terms show that Barker and Dowty’s proposal incorrectly conflates dependency and linking constraints, and that principles deter-

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(27a) can also mean ‘I (am) her grandparent’. In contrast, terms that specify the older member are always used for the older member.
mining the selection of a kinship term’s index are distinct from those that account for how semantic arguments are mapped onto syntactic dependents.

Linking Rule I does not account for the linking of arguments of all Oneida kinship terms. In Oneida, two terms are used for relations where the members belong to the same generation. These two terms, -tsiha ‘older sibling-younger sibling’ and -ʔkáha ‘sibling’, require a different linking rule than Linking Rule I, a rule referring to age, not generation.\(^{18}\)

(28) Linking Rule II (refers to age, not generation): The argument that corresponds to the older person in a kinship relation corresponds to the “subject,” while the argument that corresponds to the younger person corresponds to the “object.”

The kinship terms in (29) illustrate Linking Rule II. When applied to -ʔkáha ‘sibling’, the linking rule in (28) selects as the subject (agent) whoever happens to be the older sibling. In contrast to terms like -ʔniha ‘father-child’, whose denotation entails that one member of the kinship relation is necessarily a generation older than the other, the denotation of -ʔkáha ‘sibling’ does not entail that one member is a generation or more older than the other. Evidence that one cannot dispense with Linking Rule I and adopt Linking Rule II for all Oneida kinship terms is that when the older generation member of the kinship relation happens to be younger in age than the younger generation member of the relation, Linking Rule I applies, not Linking Rule II. In other words, a form such as yuknulhá ‘my aunt’ is appropriate even when my aunt happens to be younger than I am, demonstrating that physical age is not the determining factor in this case, generational age is.

(29a) ak-tsiha
   3ZOIC.SG>1SG-older sibling-younger sibling
   ‘my older sister’

(29b) lake-ʔkáha
   3MASC.SG>1SG-sibling
   ‘my older brother’

(29c) khe-ʔkáha
   1SG>3FEM.SG-sibling
   ‘my younger sister’

\(^{18}\) Two analyses of the meaning of the term -tsiha are possible. It may describe a relation which can be paraphrased in English as “older sibling.” Alternatively, it may merely describe a relation which can be paraphrased in English as “sibling.” If it is analyzed as meaning “older sibling,” Linking Rule II would involve lexical entailments for some kinship terms and properties of fillers of argument positions for others. Because in both cases its index must be stipulated to correspond to the older member of the relation, there is nothing which would allow us to decide between these two alternatives. Note that the stem -tsiha occurs only in the first person.
Linking Rule I does not differ qualitatively from the linking constraints that apply to situation-denoting stems. Its application invokes checking entailments of the kinship term’s denotation. In contrast, Linking Rule II differs in kind from typical linking rules. Linking rules involve what one could call situation-related properties, namely, properties of the argument when it participates in the event or relation denoted by the stem. For example, in the utterance Jeff ate all the cornbread Jeff brings about a change of state in the cornbread, but being the cause of the cornbread’s change of state is a property Jeff bears as he eats, not a property he necessarily bears outside of the event or relation to the food described in the sentence Jeff ate all the cornbread. The same holds true of the cornbread’s undergoing a change of state. In fact, all entailed properties relevant to the linking of verbal arguments are situation-related in that sense. (One of Dowty’s 1991 proto-agent properties, being sentient, may not be situation-related in this sense. But, the alternative formulation Dowty gives, having a perception, is, and so is the corresponding Notion Rule in Wechsler 1995 or the formulation in Davis and Koenig 2000 and Davis 2001).

If this characterization of the entailed properties that are relevant for verb denotations is correct, there is indeed something unique about Linking Rule II, as it makes use of participant properties that are not situation-related. Linking makes reference to a property—the age—of the fillers of the argument positions which is not entailed by the kinship relation itself. Being older is not a property that is relevant to determining whether a sibling relation holds. In contrast, determining who is a generation older is critical to assessing whether a father relation holds between two persons.

The set of Oneida kinship stems for which Linking Rule II is needed provides an answer to the linking question: the linking rules needed for non-eventive denotata can differ in kind from those needed for modeling eventive denotata. The next question is, of course, why some Oneida kinship terms make use of such cross-linguistically rare linking constraints or rules. The answer, we believe, is that it is the “optimal” solution for linking of these stems’ arguments, given the function of linking rules.

Linking constraints are meant to order or otherwise differentiate the syntactic dependents that express the semantic arguments of a head’s denotation. Linking constraints must map semantic arguments to morphosyntactic expressions anytime a speaker decides to use a verb or, in Oneida, a kinship term. The simplest solution is to use semantic properties that distinguish the predicator’s semantic arguments irrespective of the particular fillers of an argument position and their specific properties. Situation-related entailments in the sense we discussed above are just this kind of property. For generationally asymmetric kinship terms, the properties invoked in Linking Rule I have the requisite characteristic. No matter what other properties a father has, being a generation older is all that is needed to determine that it is the argument that will be mapped onto subject position. The use of generational
differences for such terms is what one would expect given the nature of the linking problem, and Linking Rule I is, therefore, the optimal solution for generationally asymmetric kinship terms and strictly parallels the kinds of entailments the linking of verbal arguments has been known to involve since the work of Dowty (1991) and many others. For a few Oneida kinship terms though, that rule is not enough, and a resort to (nongenerational) age is needed. That property is qualitatively distinct from relationally related properties, although it is similar to the situation-related rule for other Oneida kinship terms since generational and absolute seniority so often coincide. When faced with the generationally symmetric kinship terms, Oneida does the best it can to solve the linking challenge these terms pose.

4. Determining the index of the kinship term. In this section, we return to the question we raised at the end of 2. If the overwhelming majority of Oneida kinship terms share properties with verbs, why do they share with nouns the omission of initial glides, the distribution of the diminutive morpheme, and how they are negated? Excluding an arbitrary grouping of kinship terms with nouns, the explanation must have to do with some similarity that is shared between ordinary nonrelational nouns and kinship terms. We argue that what makes kinship terms similar to nouns is that they must lexically specify that one member of the relation provides an index to the word. The discussion in this section on the index of kinship terms is organized around the following three points. First, the selection of an index for kinship terms is independent of linking constraints. Second, the index of some terms is fixed lexically, but the index of others is determined contextually. Third, the selection of an index, to the extent that it is a lexical property, suggests that Oneida kinship terms cannot be analyzed as internally headed relative clauses, as has been proposed by Evans (2000) in his excellent survey of languages where kinship terms behave like verbs.

The index of some kinship terms typically corresponds either always to the older member or always to the younger member, i.e., the index is fixed lexically. Stems that have a lexically fixed index are \(-hsotha\) ‘grandparent-grandchild’, \(-\text{niha}\) ‘father-child’, \(-nulha\) ‘mother-child’, \(-\text{atleha}\) ‘grandparent-grandchild’, and \(-\text{ya}ha\) ‘parent-child’. The first three stems can be used only to talk about the older member of the relation, i.e., one’s father, one’s grandparent, and one’s mother. The last two stems are typically used to refer to the younger member, but they can be used to refer to either member. Specifically, the stem \(-\text{ya}ha\) ‘parent-child’ is used regularly in forms referring to parents, as in (30a). This stem has also been attested to refer to one’s father, specifically in the form (30b). The form in (30c) occurs several times in Lounsbury (1971), sometimes referring to the mother and sometimes to the son. The stem \(-\text{atleha}\), which usually is used for one’s grandchild, occurs in the elicited form in (30d) referring to a grandparent. However, these stems
usually refer to the younger member, and so in the normal case, they are also lexically fixed.\footnote{\hspace{1em}19}

\begin{align*}
\text{(30a)} & \quad \text{luwa-yaʔ-okú-ha} \\
& \quad 3\text{-}3\text{MASC.SG-parent-child-PLURALIZER-DIM} \\
& \quad \text{‘his parents’} \\
\text{(30b)} & \quad \text{lak-yiθa} \\
& \quad 3\text{MASC.SG}\text{-}1\text{SG-parent-child} \\
& \quad \text{‘my father’} \\
\text{(30c)} & \quad \text{luwa-yíθa} \\
& \quad 3\text{FEM.SG}\text{-}3\text{MASC.SG-parent-child} \\
& \quad \text{‘her son, his mother’} \\
\text{(30d)} & \quad \text{lakw-atléha} \\
& \quad 3\text{MASC.SG}\text{-}1\text{SG-grandparent-grandchild} \\
& \quad \text{‘my grandfather’}
\end{align*}

Stems with a lexically fixed index show that the constraints mapping arguments onto prefixes (Linking Rules I and II) and the constraints determining the index are independent. This is shown by the examples given in (31). In (31a), the argument corresponding to the agent is the index, but in (31b), the argument corresponding to the patient is the index. In both cases, Linking Rule I has linked the older member of the relation to subject (agent). In (31a), the stem specifies the older member as index, and Linking Rule I has linked the older argument (masculine singular) to subject; so in this case the older member—the grandparent—is both the subject and the index. In (31b), Linking Rule I has also linked the older member of the relation to subject (in this case first-person singular), but the stem specifies the younger member as index; in this case, then, the older member—the grandparent—is the subject but not the index, and the index—the grandchild—corresponds to the object (patient).

\footnote{\hspace{1em}19} When asked about the forms in (30b) and (30d) as compared with the more usual \textit{lakeʔiθa} ‘my father’ and \textit{laksoθa} ‘my grandfather’, respectively, the speakers mentioned in n. 1 responded \textit{nė-tshá·kat} ‘they’re the same (meaning)’, but they also added that they themselves do not use the forms in (30b) and (30d). The strict use of the terms for ‘grandparent-grandchild’, ‘father-child’, and ‘mother-child’ for the older member vs. the apparent possibility of using the terms for ‘parent-child’ and ‘grandparent-grandchild’ also for the older member, though uncommon, is noted for Seneca by Chafe (1963:20). Note also Basehart (1952), who gives, for example, \textit{lakyiθa} as an alternative form for ‘my father’. A possible “functional” explanation for this distribution is that with relations that typically have the younger member of the relation as index, having the older relation referred to instead aligns index selection with the linking of the older member to agent (by Linking Rule I). Thus in (30b), for example, the atypical index (father) is then also the agent. But in relations that always specify the older member, the index is already aligned with the agent. Of course, this explanation assumes alignment of agent with index is desirable.
(31a) lak-(h)sótha
  3MASC.SG>1SG-grandparent-grandchild
  ‘my grandfather’

(31b) liy-atléha
  1SG>3MASC.SG-grandparent-grandchild
  ‘my grandson’

Suppose that instead of Linking Rule I the argument linked to subject (agent) was always the index; then (32a) would be an appropriate expression to use if I was talking about my grandson. Or, if the argument linked to object (patient) were always the one also specified as the index, (32b) would be an appropriate expression to use if I were talking about my grandfather. But neither is appropriate.20

(32a) lakw-atléha
  3MASC.SG>1SG-grandparent-grandchild
  *‘my grandson’

(32b) *li-hsótha
  1SG>3MASC.SG-grandparent-grandchild
  ‘my grandfather’

There are three relations where the index is not fixed lexically: -ʔkahá ‘sibling’, -(y)uhwatʃa ‘uncle, aunt, nephew or niece,’ and -(y)enhusatá ‘different-generation in-laws’.21 In these cases, the index is determined contextually, which means that the referent of the word depends on the discourse context in which the word occurs. Examples are given in (33), and two extracts from recordings are given in (34) and (35).22

(33a) shako-ʔkahá
  3MASC.SG>3FEM.SG-sibling
  ‘her older brother, his younger sister’

20 As mentioned above, and in n. 17, terms with a lexically specified younger member can, atypically, be used for the older member as well, and so (32a) can be used for ‘my grandfather’; cf. the form in (30d) and the discussion also of the other examples in (30). In contrast, terms with a lexically specified older member always specify the older member as index and so (32b) is not a possible way of saying ‘my grandson’.

21 Some speakers have a stem-initial y in the last two terms, while other speakers treat these as vowel-initial stems.

22 This type of ambiguous reference is not restricted to third-person referents, although it is attested more often with third person. Some elicited examples are ku-yíha (1SG>2SG-parent-child) ‘I (am) your mother’ or ‘you (are) my daughter’, kuy-atléha (1SG>2SG-grandparent-grandchild) ‘you (are) my granddaughter’ or ‘I (am) your grandmother’, skw-atléha (2SG>1SG-grandparent-grandchild) ‘I (am) your grandchild’ or ‘you (are) my grandmother’.
(33b) *luwa-yenhúsa?*
3FEM.SG>3MASC.SG-different-generation in-laws
‘his mother-in-law, her son-in-law’

(33c) *shako-yuhwatíha*
3MASC.SG>3FEM.SG-uncle, aunt, nephew, niece
‘her uncle, his niece’

(34) **Tš-ye-yá·tat kwí· kwáh**
REPETITIVE-3FEM.SG.AGT-be.one(STAT.ASP) indeed just

**ká?**
PARTICLE

**ni-yak-ásñwa?**
PARTITIVE-3FEM.SG.AGT-be.a.size.HAB.PAST

**Kenny**

**shako-ʔkáḥa.**
3MASC.SG>3FEM.SG-sibling

‘There was one girl and she was the youngest, Kenny’s little sister’.
(The member referred to is the younger female sibling of a male [‘his younger sister’], not the older male sibling of a female [‘her older brother’].)

(35) **Né· kwí· né· tshi-yu-tayá-t-ha?**
it’s well it’s COINCIDENT-3FEM.SG.AGT-enter-HAB.ASP

**yuke-ʔkáha.**
3FEM.SG>1SG-sibling

‘That’s when my older sister was going to school’.

Kinship verbs are often analyzed syntactically as internally headed relative clauses (e.g., Evans 2000), and such an analysis would certainly not be implausible for Oneida given the verbal characteristics of Oneida kinship terms (discussed in (2) above). An English translation that is consistent with a relative clause analysis is given in (36) with a term where the index is contextually determined.

(36) **shako-ʔkáḥa.**
3MASC.SG>3FEM.SG-sibling

‘he who is older sibling to her, he who has her as younger sibling’ (i.e., ‘her older brother’) or ‘she whom he is older sibling to, she whom he has as younger sibling’ (i.e., ‘his younger sister’)

While this analysis may be possible for terms where the index is determined contextually, it is not a possible analysis for lexically fixed terms (e.g., grandparent-grandchild). If Oneida kinship terms formed internally headed relative clauses, the form in (37) should be an appropriate word for talking about either one’s grandparent or one’s grandchild; in other words it should be possible to use it to refer to either member of the relation, not just the older one—
the grandparent. The appropriate forms for talking about one’s grandchild are given in (38) for comparison.

(37) lo-hsótha
3MASC.SG>3MASC.SG-grandparent-grandchild
‘he who is grandparent to him, he who has him as grandchild’ (*‘his grandfather’)
but *‘he whom he is grandparent to, he whom he has as grandchild’ (*‘his grandson’)

(38a) lo-(a)tléha
3MASC.SG>3MASC.SG-grandparent-grandchild
‘his grandson’

(38b) shako-(a)tléha
3MASC.SG>3FEM.SG-grandparent-grandchild
‘his granddaughter’

The analysis of Oneida kinship terms as syntactically internally headed relative clauses would still be possible if it was also possible to add a syntactic requirement for Oneida that specifies which grammatical function—only subject or only object—could be the target of the relative clauses. For example, if the requirement was that only subjects could be targets, then the restriction to the older member (‘grandparent’) in (37) would be accounted for. However, the contrast between the examples in (31a) and (31b) shows that the restricted interpretation of (37) cannot be due to a syntactic requirement on Oneida internally headed relative clauses, since in (31a) the putative subject is the index, while in (31b) the putative object is the index. A consequence of analyzing kinship terms as part of internally headed relative clauses is that the selection of an index corresponding to one member of the kinship relation (rather than, possibly, the relation itself) is a syntactic process. But the lexical identification of the index of a kinship word with an argument of the kinship relation obviates the need for syntactically deriving that identification.

Given that having a (nominal) index is a lexical property of Oneida kinship terms rather than something determined syntactically via internally headed relative clause formation, it is somewhat surprising that WHICH member of the relation is the index is not always specified lexically but is, in three cases, contextually determined. The three terms whose index is determined contextually, -ʔksha ‘sibling’, -(y)uhwatsha ‘uncle, aunt, nephew, niece’, and -(y)enhusa? ‘different-generation in-laws’, were exemplified in (33). However, even though in these cases the index is contextually determined, it is still a property of the lexical stem that the index corresponds to one member of the kinship relation rather than to the relation itself; i.e., it is a property of the lexical stem that the index corresponds to one member of the kinship relation whether the index is fixed lexically or determined contextually.
Kinship terms with a contextually determined index appear to be a relatively recent type of kinship term in Oneida. Comparison with kinship terms in other languages, and in particular Mohawk, indicates that in the past, two of the three terms with a contextually determined index were typically used for the younger member of the particular relation, and a separate stem was used for the older member, i.e., almost all stems had a lexically fixed index. The stem -ʔkaha ‘sibling’ was almost certainly restricted to younger siblings, since this is its use in other Northern Iroquoian languages, and even in Oneida the stem -tsiha ‘older sibling-younger sibling’ still exists, although today it is restricted to terms where the argument that is not the index is first person, i.e., laktsiha ‘my older brother, aktsiha ‘my older sister’. Note Basehart (1952) lakeʔkíha ‘(my) older brother’ as well as laktsíha, for example (from Cliff Abbott, p.c.). (Note that the first-person forms are not used much and occur only in lists of kinship terms in pedagogical materials.) The Mohawk cognate of the Oneida stem -(y)uhwatsha is used typically when the index corresponds to the younger member of the relation, uncle-nephew, niece, and in Mohawk a different stem, -nohàʔa, is used when the index corresponds to the older member of the relation, uncle-nephew, niece. The third stem -(y)enhusaʔ ‘different-generation in-laws’ is interesting in that in Mohawk it is used for both the older and younger generation (e.g., Cuoq 1866:149 and Bonvillain 1973:153), but it is restricted to a female’s in-laws (e.g., her father-in-law, her mother-in-law, my daughter-in-law), and a different stem, -sà:wha, was used for in-laws (whether older or younger) of a male person (e.g., his father-in-law, his mother-in-law, my son-in-law).

Table 2 summarizes the interaction between linking constraints and contextual vs. lexical selection of the kinship term’s index.

5. Conclusion. We began our investigation of Oneida kinship terms by asking two questions: whether there is something universal about the fact that only $n-1$ of a relational noun’s arguments are realized as morphosyntactic dependents of the noun, and whether linking constraints for relational nouns can be qualitatively different from that of verbs. Our answer to the first question is that when languages appear to provide counterevidence to the universal that relational nouns realize $n-1$ arguments as morphosyntactic dependents, it may be because the relevant expressions are verbal. In particular, Oneida is not an example of a language in which both arguments of a noun are realized morphosyntactically because the relevant kinship terms in Oneida share properties with verbs and, like more typical verb stems, they select “verbal” pronominal affixes.23

23 Nahuatl might be a true counterexample to the hypothesis that universally when kinship terms realize morphosyntactically both of their arguments, they are based on verbal stems (Amith and Smith-Stark 1994). Whether Nahuatl is a true counterexample partly depends on the part-of-speech categories of Nahuatl. As our discussion of the Oneida facts shows, the issue can be quite complex and a definitive answer to the first question (posed in 3 above) must await further analysis of Nahuatl and similar languages.
Our answer to the second question is that the linking of some kinship terms does involve a qualitatively distinct rule from typical linking rules. We showed that two distinct, though related, rules map arguments of Oneida kinship terms onto morphosyntactic positions (i.e., prefix slots that correspond to the subject/agent and object/patient of the verbal stem). One rule (the generational rule), as expected, makes use of lexical entailments associated with the argument positions of the stem; the other rule (the absolute age rule) unexpectedly makes reference to the properties of the fillers of the argument positions.

The answers to these two questions raise further, deeper questions.

Why is it that both members of a kinship relation are mapped onto morphosyntactic positions only, it seems, when kinship terms are verbs or, at least, verbal stems?

An answer to this question, we believe, is to be found partly in our answer to why kinship terms are also nominal despite being based on verbal stems. Kinship terms are nominal because they lexically specify that one member of the kinship relation is the expression’s index. In most cases, but not in Oneida, this identification of one member of a relation means, according to Higginbotham (1985) and Barker and Dowty (1993), that one argument will not have to be realized morphosyntactically. In other words, from a semantic perspective, one characteristic of relational nouns is that they select as index one member of a relation, rather than the relation itself. Therefore, the identification of one of the arguments does not require independent morphosyntactic expression. Oneida kinship terms appear to be an exception to this generalization because the kinship terms share properties with both nouns

<table>
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<tr>
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<td>-ʔsha ‘sibling’ tsiha ‘older sibling’ younger &gt; patient</td>
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</tbody>
</table>
and verbs, and the morphosyntactic expression of arguments is sensitive to the verbal status of Oneida kinship terms and independent of the possible, concurrent (nominal) lexical selection of a kinship relation member as index.

Why is it that the linking of some kinship terms makes reference to nonsituation-related properties, e.g., age?

The answer here is, we suggested, that this is the best one can do when the only situation-related property of kinship terms, generational age, does not apply.

APPENDIX A

DISTRIBUTION OF FEMININE GENDERS IN ONEIDA KINSHIP TERMS

The pronominal system of Oneida distinguishes two feminine genders: feminine-zoic and feminine-indefinite, and the distribution of these two genders is different with kinship terms and bivalent verbs. With verbs, the selection of feminine-zoic vs. feminine-indefinite depends on properties of the referent (the fillers of the argument positions, as discussed in Abbott 1984 and Michelson 1982). However, the selection of feminine-zoic vs. feminine-indefinite with kinship terms is lexically determined. When both members of the relation are singular, stems that specify the older member (e.g., ‘grandparent-grandchild’, ‘mother-child’) require the feminine-zoic, as in (12a) and (12b) or (26a) and (26b); terms that specify the younger (e.g., ‘grandparent-grandchild’, ‘mother-child’) require the feminine-indefinite, as in (12c) or (27a) and (27b). Terms that specify either older or younger member also have the feminine-indefinite, as in (29c) or (33). In addition, the stem -nulha? in the (primary) meaning ‘mother’ requires the feminine-zoic, as in (a) below, but in the meaning ‘aunt’ requires feminine-indefinite, as in (b) below.

(a) lo-nulhá·
   3zoic.sg>3masc.sg-mother-child
   ‘his mother’

(b) yesa-nulhá·
   3fem.sg>2sg-aunt
   ‘your aunt’

In addition, stems that specify an older member (grandparent-grandchild, father-child) have the prefix lo- whenever one member of the relation is male; thus lohsótha ‘his or her grandfather, his grandmother’, ohsótha ‘her grandmother’. Otherwise, with transitive verbs, lo- is used when both arguments are masculine or when the agent is feminine-zoic and the patient is masculine; when the agent is masculine and the patient is feminine-zoic, the prefix la- occurs.

When the member not referred to by the stem is plural, the feminine-indefinite is used both with stems that specify a younger member and with stems that specify an older member, as in (c):

(c) yukhi-hsótha
   3fem.sg>1nonsg-grandparent-grandchild
   ‘our grandmother’
### APPENDIX B
#### Oneida Kinship Terms

**Refers to older member of relation:**

<table>
<thead>
<tr>
<th>Term</th>
<th>Translation</th>
<th>Refers to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>aknulhá</td>
<td>my mother</td>
<td>yourself</td>
</tr>
<tr>
<td>sanulhá</td>
<td>your mother</td>
<td></td>
</tr>
<tr>
<td>lonulhá</td>
<td>his mother</td>
<td></td>
</tr>
<tr>
<td>onulhá</td>
<td>her mother</td>
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</tr>
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</tr>
<tr>
<td>lo’niha</td>
<td>her father</td>
<td></td>
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<tr>
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<td>aksiha</td>
<td>my older sister</td>
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<tr>
<td>yutamuulhá</td>
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**Refers to younger member of relation:**

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<tr>
<td>kheyU!</td>
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</tr>
<tr>
<td>sheyU!</td>
<td>your daughter</td>
<td></td>
</tr>
<tr>
<td>shakoyU!</td>
<td>his daughter</td>
<td></td>
</tr>
<tr>
<td>utatU!</td>
<td>her daughter</td>
<td></td>
</tr>
<tr>
<td>liyU!</td>
<td>my son</td>
<td>yourself</td>
</tr>
<tr>
<td>etshyU!</td>
<td>your son</td>
<td></td>
</tr>
<tr>
<td>lo?kU!</td>
<td>his son</td>
<td></td>
</tr>
<tr>
<td>shakoU!</td>
<td>her son</td>
<td></td>
</tr>
<tr>
<td>liyatléha</td>
<td>my barber</td>
<td>yourself</td>
</tr>
<tr>
<td>etshatléha</td>
<td>your barber</td>
<td></td>
</tr>
<tr>
<td>lo?kU!</td>
<td>his barber</td>
<td></td>
</tr>
<tr>
<td>shakoU!</td>
<td>her barber</td>
<td></td>
</tr>
</tbody>
</table>

**Refers to either member of relation:**

<table>
<thead>
<tr>
<th>Term</th>
<th>Translation</th>
<th>Refers to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>yuke’kíha</td>
<td>my older sister</td>
<td>yourself</td>
</tr>
<tr>
<td>yá’kíha</td>
<td>your older sister</td>
<td></td>
</tr>
<tr>
<td>lóuyuhwatá</td>
<td>his older sister</td>
<td></td>
</tr>
<tr>
<td>shakoyenhúsa?</td>
<td>her older sister</td>
<td></td>
</tr>
<tr>
<td>lakyenhúsa?</td>
<td>my mother-in-law</td>
<td>yourself</td>
</tr>
<tr>
<td>yesayenhúsa?</td>
<td>your mother-in-law</td>
<td></td>
</tr>
<tr>
<td>loynenhúsa?</td>
<td>his mother-in-law</td>
<td></td>
</tr>
<tr>
<td>shakoyenhúsa?</td>
<td>her mother-in-law</td>
<td></td>
</tr>
<tr>
<td>li’kíha</td>
<td>my younger sister</td>
<td>yourself</td>
</tr>
<tr>
<td>shékíha</td>
<td>your younger sister</td>
<td></td>
</tr>
<tr>
<td>yóku’kíha</td>
<td>his younger sister</td>
<td></td>
</tr>
<tr>
<td>sha’kíha</td>
<td>her younger sister</td>
<td></td>
</tr>
<tr>
<td>liyuhwatá</td>
<td>my nieces</td>
<td>yourself</td>
</tr>
<tr>
<td>etshyuwatá</td>
<td>your nieces</td>
<td></td>
</tr>
<tr>
<td>lókyuhwatá</td>
<td>his nieces</td>
<td></td>
</tr>
<tr>
<td>sha’kíha</td>
<td>her nieces</td>
<td></td>
</tr>
<tr>
<td>liyuhnúsa?</td>
<td>my daughter-in-law</td>
<td>yourself</td>
</tr>
<tr>
<td>shenhnúsa?</td>
<td>your daughter-in-law</td>
<td></td>
</tr>
<tr>
<td>shakoyuhnúsa?</td>
<td>his daughter-in-law</td>
<td></td>
</tr>
<tr>
<td>utatemhnúsa?</td>
<td>her daughter-in-law</td>
<td></td>
</tr>
<tr>
<td>liyuhnúsa?</td>
<td>my son-in-law</td>
<td>yourself</td>
</tr>
<tr>
<td>etshuhwatá</td>
<td>your son-in-law</td>
<td></td>
</tr>
<tr>
<td>lókyuhwatá</td>
<td>his son-in-law</td>
<td></td>
</tr>
<tr>
<td>sha’kíha</td>
<td>her son-in-law</td>
<td></td>
</tr>
<tr>
<td>liyuhwatá</td>
<td>my niece</td>
<td>yourself</td>
</tr>
<tr>
<td>shakyuhwatá</td>
<td>your niece</td>
<td></td>
</tr>
<tr>
<td>loyuhwatá</td>
<td>his niece</td>
<td></td>
</tr>
<tr>
<td>sha’kíha</td>
<td>her niece</td>
<td></td>
</tr>
<tr>
<td>liyuhwatá</td>
<td>my niece</td>
<td>yourself</td>
</tr>
<tr>
<td>shakyuhwatá</td>
<td>your niece</td>
<td></td>
</tr>
<tr>
<td>loyuhwatá</td>
<td>his niece</td>
<td></td>
</tr>
<tr>
<td>sha’kíha</td>
<td>her niece</td>
<td></td>
</tr>
</tbody>
</table>

**Dyadic terms, with patient prefixes:**

<table>
<thead>
<tr>
<th>Term</th>
<th>Translation</th>
<th>Refers to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ukyat’o-sóha</td>
<td>my friend</td>
<td>yourself</td>
</tr>
<tr>
<td>tlaytu-lóha</td>
<td>your friend</td>
<td></td>
</tr>
<tr>
<td>lonat’óha</td>
<td>his friend</td>
<td></td>
</tr>
<tr>
<td>onat’óha</td>
<td>her friend</td>
<td></td>
</tr>
<tr>
<td>ukyat’o-se?</td>
<td>my cousin</td>
<td>yourself</td>
</tr>
<tr>
<td>tiyals’o-se?</td>
<td>your cousin</td>
<td></td>
</tr>
<tr>
<td>lonal’o-se?</td>
<td>his cousin</td>
<td></td>
</tr>
<tr>
<td>onal’o-se?</td>
<td>her cousin</td>
<td></td>
</tr>
<tr>
<td>ukyat’o-sóha</td>
<td>my brother-in-law</td>
<td>yourself</td>
</tr>
<tr>
<td>tlaytu-sóha</td>
<td>your brother-in-law</td>
<td></td>
</tr>
<tr>
<td>lonat’óha</td>
<td>his brother-in-law</td>
<td></td>
</tr>
<tr>
<td>lonal’óha</td>
<td>her brother-in-law</td>
<td></td>
</tr>
<tr>
<td>ukyat’o-sóha</td>
<td>my sister-in-law</td>
<td>yourself</td>
</tr>
<tr>
<td>tlaytu-sóha</td>
<td>your sister-in-law</td>
<td></td>
</tr>
<tr>
<td>lonat’óha</td>
<td>his sister-in-law</td>
<td></td>
</tr>
<tr>
<td>lonal’óha</td>
<td>her sister-in-law</td>
<td></td>
</tr>
<tr>
<td>ukyat’o-sóha</td>
<td>my brother, sister</td>
<td>yourself</td>
</tr>
<tr>
<td>tlaytu-sóha</td>
<td>your brother, sister</td>
<td></td>
</tr>
<tr>
<td>lonat’óha</td>
<td>his brother, sister</td>
<td></td>
</tr>
<tr>
<td>lonal’óha</td>
<td>her brother, sister</td>
<td></td>
</tr>
</tbody>
</table>


______. 1971. The Story of Deganawida [Tekanawi-(t̩-á-)]. Recited in the Oneida language by Damas Elm (93 years old) of Southwold, Ontario, on June 22, 1971, and recorded on magnetic tape. Transcribed from tape recording by Floyd Lounsbury, with the assistance of Damas Elm, June 23–28, 1971.


