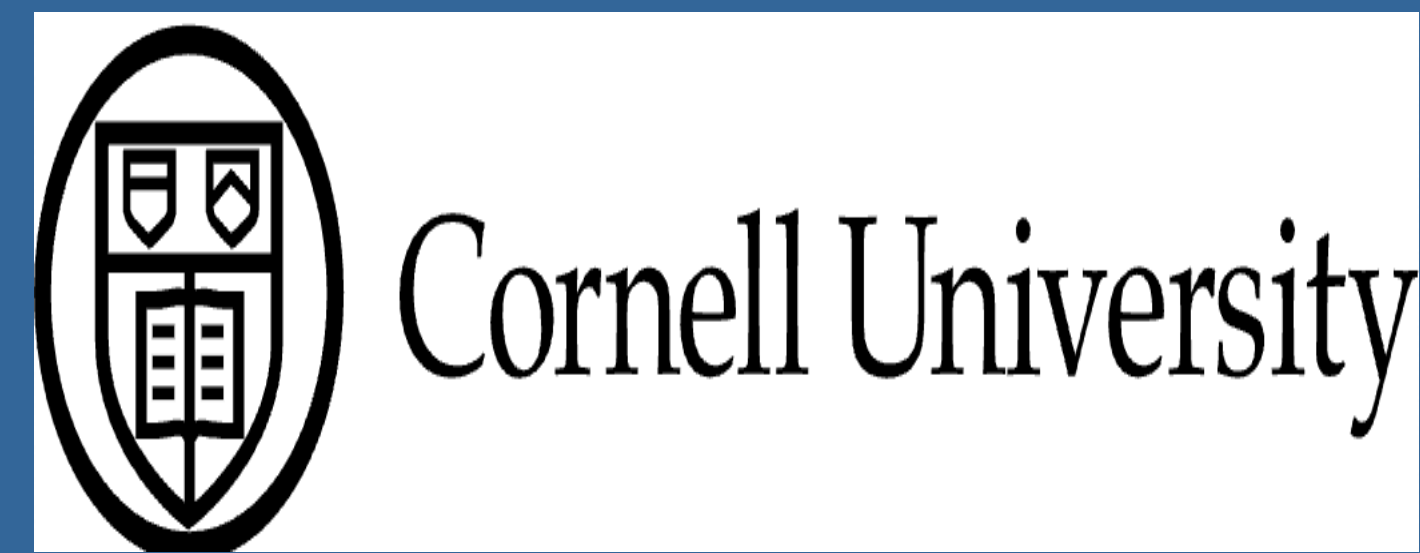# A-movement and Interpretation in a Northern Iroquoian Language

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Introduction

It has been frequently argued that nonincorporated nominal constituents in Northern Iroquoian (NI) languages do not occur in argument positions. See Baker (1991, 1996) and DeCaire et al for Kanien'kéha (Mohawk), and Koenig and Michelson (2015) for Onʌjotaʔa:ka (Oneida).

This presentation investigates the position and interpretation of nominal phrases headed by the specific determiner ne? in Gayogoho:nǫ? (Cayuga). We argue that the specificity, and in particular the wide scopal properties of postverbal [ne? NPs] can be accounted for by a remnant movement analysis: [ne? NP] is extracted from vP prior to movement of the verbal complex to AspP (Barrie et al 2014). We show how this derivation can explain binding-theoretic effects that Baker (1991, 1996) used to argue that nonincorporated nominals are in A-bar positions.

We then turn our attention to preverbal [ne? NPs]. We show that this position is limited to <u>subjects</u>, irrespective of the co-occurring pronominal prefix on the verb. [Ne? NP] nonsubjects are disallowed in preverbal position. We explain this as follows: postverbal [ne? NPs] move to outer specifiers of vP, prior to raising of the verbal complex to Aspect. Preverbal [ne? NPs] move to a higher A position, possibly Spec, TP; only the highest argument in vP may undergo this movement without violating Shortest Move/Relativized Minimality.

[ne? NPs] in Gayogoho:nǫ?

Ne? in Gayogoho:nǫ? and its cognates in other NI languages is a specific determiner. In anaphoric contexts, bare [ne? NPs] receive an anaphoric-definite interpretation. In the following narrative by the late Lottie Keye, recorded and transcribed by Richard Hatcher (2022), a bear walking along a path encounters a fox.

(1) Nę:h gwa? a?-hǫ:wá:-gę-? hehshái: t-at-ah-í:ne-?.
    then PRT FACT-3MS>3MS-see-PUNC fox CIS.3MS-SRF.road-go-PUNC
    'Then all of a sudden he saw a fox walking there.'

(2) A?há:gę? tsęh í:so? ne? otsǫ́?da? ha-há:wi-? ne? hehshái:.
    FACT-3MSA-see-PUNC that much NE? fish 3MSA-see-PUNC NE? fox
    'He saw that the fox was carrying many fish.'

In (1), insertion of ne? before hehshái: 'fox' would be infelicitous, since it would imply that the fox has already been introduced into the story. Omitting ne? before hehshái: in (2) would be similarly infelicitous, because it would imply that we are talking about a different, newly introduced fox. Notice, however also in (2) that ne? also occurs between the quantifier í:so? 'much' and otsǫ́?da? 'fish'. In this [XP ne? NP] pattern, ne? introduces a modifier of NP such as a quantifier or demonstrative. The [XP ne? NP] pattern does not receive a specific interpretation and its positioning appears to be quite free. We analyze ne? as a D head which may introduce quantifiers or demonstratives in its specifier; in their absence, that position is occupied by a [SPECIFIC] operator.

Specificity effects

Chamorro (1992) shows that the cognate particle ne(') in Kanien'kéha may receive an "indefinite" interpretation in nonanaphoric contexts. This fact can be explained by Barrie et al's (2014) hypothesis for Gayogoho:nǫ? that ne? marks specificity, which we suggest holds generally for NI languages. This hypothesis is supported by the contrast between nonanaphoric [ne? NP] and bare NPs in Chamorro's crucial examples, translated into Gayogoho:nǫ? in (3-4).

(3) Joe a?-há-tsęi:-? ne?/∅ gahén?atra?.
    Joe FACT-3SMA-find-PUNC NE? knife
    (i) Without ne?: 'Joe found a knife (in the woods)'
    (ii) With ne?: 'Joe found a knife (that I lost)'

(4) Ahsęh nihé:nǫ: ę-ha-dó:wa:t ne?/∅ hnyágwai?.
    3 males FUT-3SMA-hunt-PNC NE? bear
    (i) Without ne?: 'Three males will hunt bear, be bear hunters.'
    (ii) With ne?: 'There is a bear that three males will hunt.'

In a nonanaphoric context, gahén?atra? 'knife' with no determiner in (3) receives a nonspecific existential interpretation 'Joe found some knife'. With ne?, 'knife' receives a specific interpretation, 'a specific knife that I lost and might be looking for'. In the same nonanaphoric context, bare hnyágwai? 'bear' in (4) receives a nonspecific interepretation 'Three males will hunt some unspecified number of bear'. With ne?, ne? hnyágwai? denotes a specific bear and scopes over the other quantified expression in the sentence.

An important piece of background information is that nominal phrases in absolute initial position regularly receive a narrow focus interpretation (Mithun 1987/1992, DeCaire et al 2017). This can make manufactured data like (3-4) somewhat unnatural, as an example like (4) is more accurately interpreted as 'It is three males that there is a bear that (they) will hunt'. [Ne? NPs] are excluded from this sentence-initial focus position, in either the anaphoric or nonanaphoric interpretation. Mithun (1987/1992) attempts to account for this fact by arguing that S-initial focus position is limited to discourse-new material. However, as we have seen, [ne? NPs] can be nonanaphoric, so this fact requires further explanation.

In the extended verbal projection in Gayogohó:nǫ?, up until the category introducing aspect, the components of the verbal complex appear in reverse order to their scope: verb root-pluralizers-applicatives/causatives-aspect. We follow Barrie et al (2014) in deriving this order by successive cyclic head movement of the verbal root through intervening projections to Aspect. This in turn allows us to account for the [SPECIFIC] interpretation of [ne? NPs] by extracting them out of vP prior to verb raising (5).

Derivation and consequences

(5) [TP a?-hǫ:wá:- [AspP [-gę] -? [vP [ne? hehshái:] [vP pro [VP tV ti]]]]]
    FACT-3FS>3MS -see-PUNC NE? fox
    'She saw the fox.'

In (5), the verb root -gę- 'see' raises and adjoins to Aspect. We assume that Tense/Modal morphemes and the pronominal prefixes are generated above this position and attached as phonological dependents, perhaps clitics, to the verbal complex. The account of the specificity of [ne? hehshái:] 'a/the fox' follows Diesing (1992): this constituent is extracted from vP and thus escapes existential closure. We represent the landing site of [ne? hehshái:] as an outer specifier of vP, thus treating it as on a par with some accounts of Object Shift. A more precise analogy is Japanese Intermediate Scrambling, since the operation can apply to both subjects and objects. Like the latter, we suggest that the landing site can have A properties.

This analysis provides an alternative explanation for one of Baker (1991, 1996) most powerful arguments for the the view that overt nominal expressions in Kanien'kéha do not occupy argument positions. Baker observes that BT condition C appears to show no subject-object asymmetry. That is, expected condition C violations involving a *pro* subject and an object containing a coreferent R-expression are acceptable. (6) is Baker's crucial example in Gayogoho:nǫ?, where the judgment is the same:

(6) A?-t-ha-ya?k nęgyęh ne? Sawádis hǫwé? gahén?atra?.
    FACT-CIS-3SMA-break.PUNC this NE? Sawadis his knife
    '*Hei broke this knife of Sawadisi'

Baker's account of the acceptability of (6) is that the object 'this knife of Sawadis' is base-generated in an S-adjoined position outside the c-command domain of the pro subject corresponding to 'he'. The alternative presented by the derivation in (5) is that the *pro* subject in Spec, vP does not c-command the object in the outer Spec of vP. Note that this alternative requires that the landing site of the object is an A position; otherwise we might expect a condition C reconstruction effect.

Baker makes a similar argument involving weak crossover effects: once again, Kanien'kéha shows no subject-object asymmetry. Gayogoho:nǫ? also shows no asymmetry, but the judgments differ: a subject wh-phrase binding a pronoun inside the object and an object wh-phrase binding a pronoun inside the subject are both possible in Gayogoho:nǫ?, whereas neither is in Kanien'kéha. The difference could have to do with the eligibility of the overt pronominals in the two languages for a bound variable pronoun reading. Focusing on the case of WCO of a wh-object extracted over a subject containing a coreferent pronoun, the acceptability of the bound reading in this case follows from the derivation in (5) if we assume that wh movement takes place from the outer vP Spec position:

(7) Sǫ́:nahti goya?dagé:nha?[vP ti [vP ne? gáǫhę?i onǫ́hgwatra?]]?
    who 3SFP-help NE? her medicine
    '??Who did her medicine help?' (Who = her)

Preverbal [ne? NPs]

Bonvillain (1985) observes that in Kanien'kéha, agent [ne? NPs] can precede the verb as long as something else occupies S-initial focus position. The same is true in Gayogoho:nǫ?:, except the relevant class of [ne? NPs] is subjects, not agents. Thus (8) can only mean 'The fox asked this bear', not 'This bear asked the fox.' In (9), 'the fox' triggers patient marking on the verb and is a semantic nonagent, but nevertheless is possible in preverbal position.

(8) Ó:nęh ne? hehshái: a?hǫwa-hó:dǫ-? nę́:gyęh ne? ohnyágwai?.
    next NE? fox FACT-3MS>3MS-ask-PUNC this NE? bear
    'Next the fox asked this bear.' (Lottie Keye, Hatcher 2022: 183)

(9) Oh dó:gęhs ne? hehshái: ho-d-ǫtgá:d-e?.
    oh truly NE? fox 3SMP-SRF-happy-PURP.PUNC
    'Oh truly the fox was happy.' (Lottie Keye, Hatcher 2022: 182)

To confirm the theta-bar and A status of the preverbal position for [ne? NPs], we reapplied the WCO test in (7) to [ne? her medicine] in that position. The result is degraded, exactly as expected for a WCO violation:

(7) ??Sǫ́:nahti [ne? gáǫhę?i onǫ́hgwatra?] goya?dagé:nha? ti?
    who NE? her medicine 3SFP-help
    '??Who did her medicine help?' (Who = her)

Conclusion

We conclude that Gayogoho:nǫ? has two clearly defined argument positions for overt nominal phrases: the preverbal position for subject [ne? NPs], and postverbal position for specific [ne? NPs] of all types.

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