Squibs
Notules

Unaccusativity and the VP node in Cayuga

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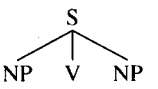
1. INTRODUCTION

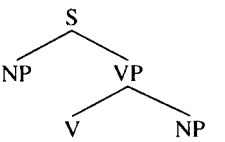
In this squib, I discuss the iterative marker in Cayuga (Northern Iroquoian) and how it helps us to understand VP structure and unaccusativity in that language. This discussion bears directly on the issue of configurationality and clausal structure (Hale 1983, Jelinek 1984, Baker 1996, Legate 2002). A fundamental question about *discourse-configurational* languages[1] is whether they have a distinct VP node or a flat structure. I show that the iterative marker takes scope over objects but not over subjects, supporting the notion that a distinct VP node is present in this language. Furthermore, I show that the iterative marker also takes scope over the subjects of unaccusatives, thus distinguishing unaccusatives from unergatives.

Discourse-configurational languages have the appearance of free word order (see fn. 1), leading Hale (1983) to posit the flat sentence structure in (1a) as opposed to the articulated structure in (1b), with a distinct VP node. The lack of subject–object asymmetries such as weak crossover and coreference effects between subject and object led Baker (1991) to a similar proposal (although Baker did assume a distinct VP node).

(1) a.



b.



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[1]The term *discourse-configurational* refers to the fact that the order of the elements in the clause is governed by discourse notions such as topic and focus rather than by grammatical notions such as subject and object. The term supplants the earlier term *non-configurational* (as used by Hale 1983), which simply implied the lack of word order based on grammatical notions. Although these two terms are not exactly interchangeable, I use *discourse-configurational* here for simplicity.

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Since Hale's proposal, mounting evidence has been adduced to suggest that discourse-configurational languages have the same kind of articulated structure as more familiar languages. In particular, Baker (1991) has demonstrated that certain subject–object asymmetries do appear in Mohawk (closely related to Cayuga), but manifest in ways different from those observed in languages like English. Notably, noun incorporation targets the object position, not the subject position. This squib introduces data from the iterative marker in Cayuga, which also exhibits a subject–object asymmetry.

The core property of the iterative marker that informs the current analysis is the fact that it can take scope over the object but not the subject. Consider the examples in (2).[2]

(2) a. John s-a-há-hya-k-∅ swahó:wa?
John ITER-FACT-3.SG.MASC.AG-fruit-eat-PUNC apple
'John ate an apple again.' [a different apple] ITER > apple

b. s-ha-hsdá:h-a? owí:ya?
ITER-3.SG.MASC.AG-cry-HAB baby
'A baby is crying again.' [same baby] baby > ITER

The most natural interpretation of (2a) involves a narrow scope reading of the indefinite object. That is, what John did again is eat an apple. In (2b), however, the subject cannot be understood as taking scope under the iterative marker. That is, this sentence cannot have the meaning in which what happened again is that a baby cried. It can only mean what the baby did again was cry. I show below that the single argument of an unaccusative predicate, like the object of a transitive, can take scope under the iterative marker. These facts clearly suggest that the articulated structure in (1b) is called for.

The remainder of this squib is structured as follows. Section 2 presents the background of this study. Section 3 contains brief comments on the methodology. Section 4 presents the properties of the iterative marker in Cayuga. Section 5 presents the discussion on unaccusativity and VP structure. Section 6 is a brief conclusion.

2. BACKGROUND

Cayuga is a Northern Iroquoian language spoken in southern Ontario by fewer than one hundred people. Like other discourse-configurational languages, Cayuga, and Northern Iroquoian in general, fail to show many of the traditional subject–object asymmetries (see Baker 1991 for Mohawk). This putative lack of such asymmetries suggests a flat sentence structure in Northern Iroquoian languages (in the sense of

[2]The following abbreviations are used:

AG	agent	NE	specificity marker
FACT	factual	NEUT	neuter
FEM	feminine	PAT	patient
HAB	habitual	PUNC	punctual
ITER	iterative	SG	singular
MASC	masculine	STAT	stative

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Hale 1983). This flat structure was challenged by Baker (1988, 1996) on the basis of noun incorporation, where he showed that only objects, but not subjects, can incorporate (see also Rice 1991).

Unaccusativity can be defined as the tendency for the single argument of an intransitive verb to behave as an internal argument rather than as an external argument. This property was famously illustrated for Italian with *ne*-cliticization (Perlmutter 1978). Unaccusative verbs typically indicate change of state (*break*, *melt*, etc.) or movement (*come*, *go*, etc.), although there is cross-linguistic variation in the exact set of unaccusative verbs. Unergative verbs typically indicate manner of motion (*walk*, *run*, etc.) or bodily functions (*cough*, *cry*, etc.), but also include fully agentive verbs (*work*, *think*, etc.). Rice (1991) showed that noun incorporation serves as an unaccusativity diagnostic in Slave by showing that only the subjects of typically unaccusative verbs can undergo noun incorporation whereas the subjects of unergatives cannot. Noun incorporation consistently fails to target an external argument and can only target elements inside a VP, including objects and VP-internal obliques such as instruments and paths (Mithun 1984, 2004; Baker 1988).[3]

3. METHODOLOGY

The data for this study were collected over a number of field visits to three speakers of Cayuga in the Six Nations community in southern Ontario. Two speakers are in their late fifties and one speaker is in her early forties. All three are fluent speakers of Cayuga capable of offering fine-grained semantic judgements and completing the experimental tasks laid out below. All three speakers had remarkably consistent results. Only those data on which all three speakers concurred are included here.

In the initial visit, various examples of the iterative were elicited using standard elicitation techniques (Matthewson 2004). This was done to obtain a large enough set of verbs with which the iterative is used. Although the iterative is quite productive and compositional, it cannot be used with every verb. Requests for direct translations were kept to a minimum. Given the relative simplicity of the data I was trying to acquire, the consultants could easily help me come up with additional verb plus iterative combinations.

In the second and subsequent visits, consultants were presented with various contexts and were asked for felicity judgements on test sentences. Two sample contexts are given in (3).

(3) a. Context 1: You are in a nursery and a baby starts crying. Soon, another baby starts crying, then another.

b. Context 2: You are walking through the aftermath of a severe disaster such as an earthquake. As you move about you hear a woman crying over the death of her child. You keep hearing woman after woman crying in this manner.

[3] A reviewer noted that cases of subject incorporation, while rare, are reported in the literature. Notably, Turkish has been argued to have subject incorporation (Sezer 1991, Kornfilt 2003).

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Carefully setting up the required context is vital for eliciting subtle judgements comparing specific and non-specific readings of arguments.

4. THE ITERATIVE

All Northern Iroquoian languages have an iterative marker /s-/ that appears at or close to the left edge of the verbal complex (Lounsbury 1949).[4] In Cayuga, as in other Northern Iroquoian languages, the iterative typically refers to a repeated action or a restored state.[5] (Lounsbury 1949, 1953; Woodbury 1975, 2003; Abbott 2000; Froman et al. 2002; Abrams 2006). Consider the examples in (4) and (5).

(4) a. ho-yę́:tw-ęh
3.SG.MASC.PAT-plant-STAT
'He planted it.'

b. s-ho-yę́:tw-ęh
ITER-3.SG.MASC.PAT-plant-STAT
'He planted it again.'

(5) a. go-kǫ́:ni:-∅
3.SG.FEM.PAT-cook-STAT
'She is cooking.'

b. j-ako-kǫ́:ni:-∅
ITER-3.SG.FEM.PAT-cook-STAT
'She is cooking again.'

We turn now to some specific properties of the iterative/restitutive use of this prefix. In English, the *re-* prefix takes scope over the verb (or the end state) only. In (6a), John could have either read the same book again or a different book. In (6b), it must be the same book that is read again.

(6) a. John read a book again.

b. John re-read a book.

Thus, forms such as *re-eat an apple* are interpreted as absurd since such a form must refer to consuming the same apple again. The Cayuga iterative marker, by contrast, takes scope over the entire VP. Consider the paradigm in (7)–(9).

(7) John s-a-há-hya-k-∅
John ITER-FACT-3.SG.MASC.AG-fruit-eat-PUNC
'John ate a piece of fruit again.' [a different piece of fruit]

[4] A reviewer asked how the iterative marker comes to appear at the left edge of the verbal complex since it seems to describe a relatively low aspectual property of the verb. This is puzzling in light of Baker's Mirror Principle (Baker 1985), which predicts that the iterative marker should be close to the verb root. I have no explanation for this fact at the moment, and an in-depth explanation would take us too far afield. Note, however, that the Mirror Principle is commonly taken to account for the order of suffixes. How the order of prefixes is derived will have to wait for future research.

[5] However, there are other idiosyncratic uses of this morpheme.

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(8) John s-a-ha-hya-k-Ø swahó:wa^{ʔ}
John ITER-FACT-3.SG.MASC.AG-fruit-eat-PUNC apple
'John ate an apple again.' [a different apple]

(9) #John s-a-há-hya-k-Ø ne^{ʔ} swahó:wa^{ʔ}
John ITER-FACT-3.SG.MASC.AG-fruit-eat-PUNC NE apple
('John ate an apple again.') [must be the same apple → absurd meaning]

The iterative marker allows for the repetition of the whole event denoted by the VP rather than just the verb. First, example (7) refers to the event of eating another piece of fruit. This is unsurprising from the perspective of morphological autonomy since the entire verb-word encapsulates the repeated event, including the direct object. In example (8), however, what is repeated is the event of eating an apple. Finally, in example (9), the object is interpreted outside the scope of the iterative marker. Generally, nouns marked with *ne^{ʔ}*, like the object in (9) tend to be definite or specific, hence the absurd meaning in (9). Note that (4b) has no such absurd meaning.

Next I present data on the behaviour of the iterative marker with unaccusative and unergative intransitive verbs. Consider the examples in (10) and (11).

(10) s-ha-hsdá:-ha^{ʔ} (ne^{ʔ}) owí:ya^{ʔ}
ITER-3.SG.MASC.AG-cry-HAB (NE) baby
'The/a baby is crying again.' [must be the same baby]

(11) (agǫ́:gwé^{ʔ}) s-a^{ʔ}-ǫ́-hsdaę-^{ʔ} (agǫ́gwe^{ʔ})
(woman) ITER-FACT-3.SG.FEM.AG-cry-PUNC (woman)
'A woman cried again.' [must be the same woman]

In both cases, it must be the same baby or the same woman that is crying again. The context given for (10) and (11) was given in (3). Crucially, the sentences in (10) and (11) cannot be used to describe this scenario. That is, (10) cannot have the meaning that what happens again is that a baby cries. It can only have the meaning that a particular baby cried again. With (11), it must be the same woman that is crying again.

These facts contrast with (8), which can have the reading where what John did again was eat an apple. Thus, the iterative can take scope over the object but not the subject. Again, the object must not be marked for specificity (with the NE marker) in order for it to take scope under the iterative. The subject can never take scope under the iterative marker, whether it is pre-verbal or post-verbal (see (11)) and whether or not it is marked for specificity (see (10)).

Next, consider the data in (12) and (13), with unaccusative predicates. The context used here was the following. In the first example, the speaker was asked to imagine they were in a nursery again, but this time with faulty cribs, the result of which is that babies kept falling out of the cribs. In the second example, a fairly straightforward scenario was set up in which the speaker had to imagine they were writing a letter and pens kept breaking. In both cases, the following sentences are acceptable descriptions of these situations.

(12) s-a-há-dagra^{ʔ}-Ø owí:ya^{ʔ}
ITER-FACT-3.SG.MASC.AG-fall-PUNC baby
'A baby fell again.'

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(13) s-a-wág-ya$^{?}$k-∅ gahyádohkwa$^{?}$
ITER-FACT-3.SG.NEUT.AG-break-PUNC pen
'A pen broke again.'

Example (12) contains a prototypical unaccusative and can have the meaning in which a different baby fell. Example (13) contains an inchoative unaccusative. Likewise, this sentence can mean either that the same pen broke again or that a different pen broke.

To summarize, the iterative marker in Cayuga can take scope over the object in a transitive construction. Further, we saw that the iterative marker can take scope over the subject of an unaccusative, but not over the subject of an unergative. These results straightforwardly argue for a distinct VP node in Cayuga, which I describe in the next section.

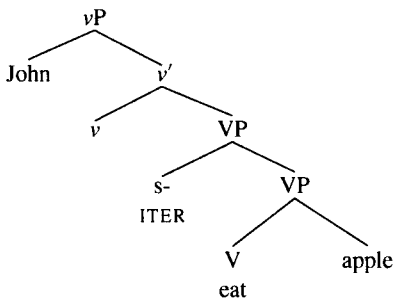
5. Discussion

In the previous section, it was shown that the iterative marker takes scope over the entire VP. We can use this fact to elucidate additional details of the structure of the VP in Cayuga. Given that the subject of an unaccusative is hypothesized to originate inside the VP, the facts presented in the previous section offer additional evidence for a distinct VP node. Consider again the properties of the iterative with a transitive predicate (14).

(14) John s-a-há-hya-k-∅ swahó:wa$^{?}$
John ITER-FACT-3.SG.MASC.AG-fruit-eat-PUNC apple
'John ate an apple again.' [a different apple]

Here, the iterative marker has scope over the whole VP event (in contrast to English *re-*), suggesting the following rough structure: ITER-[eat apple]. Thus, informally, we have the following structure for (14).[6]

(15)



The explanation is clear. The single argument of the verb in each example above is introduced within VP, and hence falls under the scope of the iterative marker (16).

[6] I leave the precise details on the formation of the verbal complex to future research. Regardless of what theory of morphosyntax one ascribes to, the syntactic properties described here all point to the conclusion that Cayuga has a distinct VP node and unaccusative predicates.

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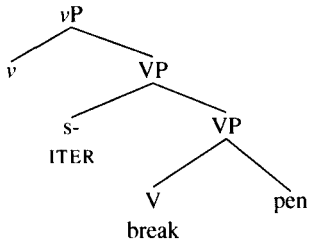
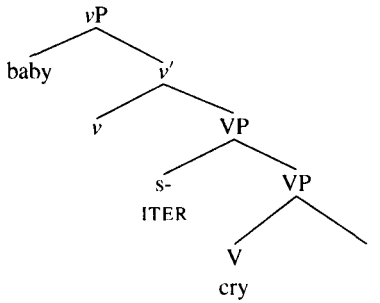
(16)



The subject of an unergative, however, is merged in Spec-*v*P, outside the scope of the iterative. Thus, a reading where the iterative marker takes scope over the subject is unavailable (17).

(17)



6. Conclusion

In this squib, I have discussed the properties of the iterative marker in Cayuga and have proposed that it can serve as an unaccusativity diagnostic, in addition to the noun incorporation facts discussed previously in the literature. This turns out to be important in elucidating the clausal structure of Cayuga by demonstrating that this language has clear evidence for a distinct VP node.

In terms of the interaction of the iterative marker with the arguments of the clause, it was shown that this marker can take scope over the object, but not over the subject of a transitive verb. Specifically with respect to unaccusativity, the single argument of those verbs that are standardly assumed to be unaccusative also falls within the scope of the iterative marker, while the single argument of an unergative does not.

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