The Morphological Status of -?at in Nuu-chah-nulth*

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0. Introduction

Nuu-chah-nulth, part of the Southern Wakashan branch of the Wakashan language family, has a suffix -?at, which appears on the predicate.\(^1\) The presence of -?at is associated with syntactic and semantic changes. Sapir (1924), Swadesh (1933), and Sapir and Swadesh (1939) treat it as a passive suffix, as do Rose (1981), Rose and Carlson (1984), Emanatian (1988), and Kim (2000). On the other hand, Whistler (1985) analyses it as an inverse marker similar to that found in Algonquian languages, and Nakayama (1997a, b) argues that -?at only affects the semantics of the predicate in such a way that the whole predication is framed in terms of the effect of an action, event, or state. The goal of this paper is to provide both a morphological and syntactic analysis of -?at. I claim that -?at is a passive marker, providing relevant data, which are from my own fieldwork. Interestingly, the use of -?at is not always optional: the distribution of a -?at construction is subject to the person hierarchy (cf. Silverstein 1976, Klokeid 1978). This approach will reconcile the morphological, syntactic, and semantic properties of -?at, leading to the conclusion that -?at is a passive suffix which is sensitive to the person hierarchy.

1. Preliminary Data: Background\(^2\)

In Nuu-chah-nulth, -?at is sometimes obligatorily present, sometimes optional, and sometimes obligatorily absent with a transitive verb. The distribution of -?at is determined by a person feature associated with each argument of the verb.\(^3\)

\(^1\) See Jacobsen (1973) for Makah, and Klokeid (1978) for Nitinat (Ditidaht). Both studies provide an analysis of Makah and Nitinat counterparts of -?at, respectively.

\(^2\) Abbreviations used in this paper are: CAUS = causative, DEIC = deictic, IND = indicative, INDEF = indefinite, INT = interrogative, MOM = momentaneous, POSS = possessive, REL = relative, Quo = quotative, sg = singular, pl = plural.

\(^3\) -?at appears not only on the predicate, but also in the inalienable possessive structure on a nominal, as shown in (i):
1.1. **Contexts Where -ʔat Is Obligatorily Present**

-ʔat is obligatory when a 3rd person argument acts upon a 1st/2nd person argument. In (1), where a 3rd person Mary is the Agent and a 1st or 2nd person is the Patient, (1a) is acceptable with -ʔat on the predicate. But when -ʔat is absent, the sentence is ill-formed as shown in (1b).

(1) a. yaa?akapatsiš/ʔick (ʔuhʔat)⁴ Mary.
   yaa/ak-ʔat-siš/ʔick ʔuhʔat Mary
   care-CAUS-ʔat-1sg/2sg.IND by Mary
   ‘I/You am/are loved by Mary (= Mary loves me/you).’

   yaa?ak-ʔap-ʔiš Mary ʔiš/suwa
   care-CAUS-3sg/IND Mary me/you
   ‘Mary loves me/you.’

1.2. **Contexts Where -ʔat Is Optional**

The examples in (2) show that if a 3rd person acts upon another 3rd person, then the presence/absence of -ʔat does not affect the grammaticality of a sentence. Therefore, both (2a) with -ʔat and (2b) without are acceptable.

(2) a. yaa?akapatʔiš John (ʔuhʔat) Mary
   yaa?ak-ʔap-ʔat-ʔiš John ʔuhʔat Mary
   care-CAUS-ʔat-3sg/IND John by Mary
   ‘John is loved by Mary (= Mary loves John).’

b. yaa?akapʔiš Mary John
   yaa?ak-ʔap-ʔiš Mary John
   care-CAUS-3sg/IND Mary John
   ‘Mary loves John.’

1.3. **Contexts Where -ʔat Is Obligatorily Absent**

-ʔat is forbidden whenever a 1st/2nd person is the Agent. There are four cases to consider: 1st person Agent-2nd person Patient, 2nd person Agent-1st Patient, 1st Agent-3rd Patient, and 2nd Agent-3rd Patient; each case is illustrated with separate examples.

(i) a. ṭuhčitʔatqs ‘my head’
   Ġuʔčiʔati-ʔat-qs
   head-POSS-1sg

b. ṭuhčitʔatʔi ‘his/her head’
   Ġuʔčitʔati-ʔat-ʔi
   head-POSS-3sg

Although I do not deal with the latter in this paper, their relationship requires further research. A similar phenomenon is attested in Navajo, where the 3sg pronominal prefixes ɣi- and bi- are used in both direct/inverse alternations and possession.

⁴ Jacobsen (1979) points out that for Makah, another Southern Wakashan language, all prepositions including the Makah counterpart of the Nuu-chah-nulth ʔuhʔat are prepositional clauses rather than phrases. I leave this issue for further study.

⁵ Strictly speaking, in a discourse context, the use of -ʔat cannot be free even with 3rd-person participants, which I will discuss in detail later. Therefore, by “optional” I mean that its use is SYNTACTICALLY free in a discourse-neutral context.
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(3) is an example where a 1st person acts upon a 2nd person. With -?at on the predicate, (3a) is ungrammatical. This contrasts with the well-formed sentence (3b), where the predicate occurs with -?at.

care-CAUS-?at-2sg/IND by me care-CAUS-1sg/IND you
‘You are loved by me (=I love you).’ ‘I love you’

The sentences in (4) have a 2nd person Agent ‘you’ and a 1st person Patient ‘I/me’. (4a) is ill-formed with -?at on the predicate, but (4b) is well-formed without -?at:

care-CAUS-?at-1sg/IND me care-CAUS-2sg/IND you
‘I am loved by you (=You love me).’ ‘You love me’

In (5), where the Agent is 1st or 2nd person and the Patient is 3rd person Mary, (5a) is unacceptable with -?at, but (5b) is acceptable without -?at:

yaa?ak-?ap?at-?i? Mary (uH?at) si?ya/su?wa
care-CAUS-?at-3sg/IND Mary by me/you
‘Mary is loved by me/you (= I/You love Mary).’
yaa?ak-uk-si?/yaa?ak-?ap-?ick Mary
care-CAUS-1sg/IND/care-CAUS-2sg/IND Mary
‘I/You love Mary.’

2. The Morphological and Syntactic Behaviour of -?at
2.1. Word Order
Nuu-chah-nulth has an unmarked word order, VSO, in an active clause with two overt arguments with an Agent NP occupying the subject position and a Patient NP occupying the object position. If the postverbal NP is a subject, we predict that the Patient NP will occupy the postverbal position in a -?at clause.

Comparison of (6a) and (6b) with respect to word order reveals that this is the case. In (6a), which is an active clause, the Agent Mary immediately follows the verb, followed by the Patient John. In (6b), which is a -?at clause, the Patient John immediately follows the verb.

(6) a. Active
yaa?ak-?ap-?i? Mary John
love-3sg/IND Mary John
‘Mary loves John.’
b. -?at clause
yaa?ak-?ap-?i? John ?uH?at Mary
love-?at-3sg/IND John by Mary
‘John is loved by Mary/Mary loves John.’

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One might suspect that even if the Agent is realized by an oblique PP, this does not necessarily imply that the Patient is the subject in a -\textit{iat} clause. However, the changes of argument order in an active/-\textit{iat} pair are not simply changes of word order; they are associated with the changes of grammatical relations of NPs. Therefore, the differences in word order between an active and a -\textit{iat} clause are syntactically significant.

2.2. A Pronominal Suffix Is a Subject Agreement Marker

Nuu-chah-nulth has no morphological case system. Grammatical relations of nominals are disambiguated not only by unmarked word order, but also by a pronominal suffix on the predicate. I argue that this pronominal suffix is a subject agreement marker.

The pronominal subject suffix system is very complicated, exhibiting a different form according to each Mood. There is no object marking system in Nuu-chah-nulth and the pronominal suffixes identify the subject only. When an active transitive verb occurs with only one overt argument, that argument is always interpreted as an object as shown in (7). The identity of the null subject argument is made clear by the subject agreement marker.

\begin{center}
(7) \textbf{Active} \\
a. yaa?akap\text{\textit{i}s} \text{John.} \quad b. yaa?akap\text{\textit{i}s}\text{\textit{at}} \text{John.} \\
yaa?akap\text{\textit{i}s} \text{John} \quad yaa?akap\text{\textit{i}s}\text{\textit{at}} \text{John} \\
love-\text{\textit{3sg/IND}} \text{John} \quad love-\text{\textit{3pl/IND}} \text{John} \\
\text{‘She loves John/*John loves her.’} \quad \text{‘They love John/*John loves them.’}
\end{center}

Changes in the word order of a transitive clause with two overt NPs accompany changes in the pronominal suffix. In (8a), the subject is \textit{Mary} and the pronominal suffix -\textit{i}s ‘\textit{3\textsuperscript{rd} sg}’ is used, while in (8b), the subject is \textit{John and Bill} and here a different suffix, -\textit{i}s\textit{at} ‘\textit{3\textsuperscript{rd} pl}’, is used. Consequently, these examples establish that the pronominal suffix is a subject agreement marker.

\begin{center}
(8) \textbf{Active} \\
a. kaapap\text{\textit{s}}i\text{\textit{a}}\text{\textit{i}s} \text{Mary} \text{John} \text{?uh?ii\textit{s}} \text{Bill.} \\
kaapap\text{\textit{s}}i\text{\textit{a}}\text{\textit{a}}\text{\textit{i}s} \text{Mary} \text{John} \text{?uh?ii\textit{s}} \text{Bill} \\
like-\text{\textit{3sg/IND}} \text{Mary} \text{John} \text{and} \text{Bill} \\
\text{‘Mary loves John and Bill.’} \\
b. kaapap\text{\textit{s}}i\text{\textit{a}}\text{\textit{i}s}\text{\textit{at}} \text{John} \text{?uh?ii\textit{s}} \text{Bill} \text{Mary.} \\
kaapap\text{\textit{s}}i\text{\textit{a}}\text{\textit{a}}\text{\textit{i}s}\text{\textit{at}} \text{John} \text{?uh?ii\textit{s}} \text{Bill} \text{Mary} \\
like-\text{\textit{3pl/IND}} \text{John} \text{and} \text{Bill} \text{Mary} \\
\text{‘John and Bill love Mary.’}
\end{center}

Given that the pronominal agreement suffix provides information about the identity of the subject, we expect that if an agreement marker is changed in an active/-\textit{iat} pair, this should reflect a change in the grammatical relations of NPs.
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We will see how it works by the comparison of (8) and (9). In the pair of (8a) and (9a), the subject marker -?iš ‘3sg’ identifies the postverbal Mary as the subject in an active sentence, (8a), and the subject marker -?iš?ať ‘3pl’ identifies the postverbal John and Bill as the subject in its -?at counterpart, (9a). Also in the pair of (8b) and (9b), the subject agreement marker is different depending on the postverbal NP, -?iš?ať ‘3pl’ and -?iš ‘3sg’, respectively. This tells us that the presence of -?at causes a change in the grammatical relation of the Patient NP. That is, the subject agreement marking system provides evidence that the Patient is promoted to the subject in a -?at clause. The objects John and Bill in (8a) and Mary in (8b) become a subject in each -?at counterpart, (9a) and (9b), respectively.

(9)  -?at clause
   like-?at-3pl/IND John and Bill by Mary
   ‘John and Bill are loved by Mary/Mary loves John and Bill.

   like-?at-3sg/IND Mary by John and Bill
   ‘Mary is loved by John and Bill/John and Bill love Mary.’

2.3. Subject Control

A subject control predicate requires the subject of the subordinate clause to be coreferential to the subject of the main predicate. In (10a), the subject of šamits?ik- ‘try’ and the subject of šamits?ik- ‘kiss’ are coreferential to each other, i.e., ‘they’. On the other hand, in (10b), the subjects of each verb, ‘they’ and Mary, are not coreferential and the sentence is ungrammatical.

   try-PAST-3pl/IND kiss John
   ‘They tried to kiss John.’

   šamits?ik-mit?iš?ať/ Mary John
   try-PAST-3pl/IND kiss Mary John
   ‘They tried for Mary to kiss John.’

   Based on the syntactic behaviour of a subject control predicate, it is predicted that the presence of -?at in a sentence with a subject control predicate causes the change of the subject of the predicate on which -?at appears. The change of the subject results from the promotion of the Patient. (11) shows that this prediction is borne out:
(11) -?at clause

   nami+tšix-mit?-iš?a† kʷikʷixaši?-at John
   try-PAST-3pl/IND    kiss?-at John
   ‘They tried for John to be kissed’

   nami+tšix-mit?-iš?a† kʷikʷixaši?-at ?uḥ?at John
   try-PAST-3pl/IND    kiss?-at by John
   ‘They tried to be kissed by John.’

The ungrammaticality of (11a), which is a -?at counterpart of (10a), shows the subject of the main clause and the subject of the subordinate clause are not identical: the subject position of the subordinate predicate is occupied by John, which is in the object position in the active counterpart (10a), while the subject of the main clause is occupied by a 3rd pl. ‘they’. On the other hand, in (11b), which is a -?at counterpart of an ungrammatical active clause like ‘They tried for John to kiss them’, the presence of -?at makes this sentence grammatical since the Patient object is promoted to the subject of ‘kiss’, in which case the subject is identical with the subject of the main predicate ‘try’.

2.4. The Agent in a -?at Clause

In this section I provide evidence that the Agent NP is an adjunct, not a subject.

2.4.1. Possessive Structure

In Nuu-chah-nulth, possession is expressed by attaching a possessive suffix to a possessed nominal root, the antecedent NP of the possessive pronominal expression necessarily occupying the subject position. The position of the antecedent, therefore, determines the grammaticality of sentences, which eventually gives evidence that the Agent NP is not a subject in a -?at construction. This is illustrated in (12), an active clause, and in (13), a -?at clause. First, (12a-b) exhibit a subject-object asymmetry in terms of coreference between an antecedent and a possessive pronominal suffix. In (12a), the NP John is a subject and the NP ?uushyumsuk?i ‘his friend’ is an object, where the possessive and John refer to the same entity. In (12b), the NP ?uushyumsuk?i ‘his friend’ is a subject and the NP John is an object, where again the possessive and John refer to the same entity as indicated by the coindexation. Here, note that the same sentence can also mean ‘He saw John’s friend’, which is grammatical if He refers to another person, not John. On the other hand, in (13a), which is a -?at counterpart of (12a), the antecedent John follows the NP ?uushyumsuk?i ‘his friend’, which is in the subject position. This leads to an ungrammatical sentence. In (13b), which is a -?at counterpart of (12b), the antecedent John, in the subject position, precedes the NP ?uushyumsuk?i ‘his friend’, and unlike the latter, this sentence is grammatical.
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(12) Active clause
see-PAST-3sg/IND John friend-3sg/POSSi
‘John saw his friend.’
see-PAST-3sg/IND friend-3sg/POSSi Johni
*‘His friend saw Johni.’

(13) -?at clause
see-?at-PAST-3sg/IND friend-3sg/POSSi by Johni
*‘His friend was seen by Johni/John saw his friend.’
see-?at-PAST-3sg/IND Johni by friend-3sg/POSSi
‘John was seen by his friend./His friend saw John’

2.4.2. Scrambling
In Nuu-chah-nulth, an argument can be extracted from its original position, but an oblique PP cannot. In (14b), the object ?uu?sh?yumsuk?i ‘his friend’ is extracted from its original position, the position following the subject. However, this sentence is still grammatical. On the other hand, in a -?at construction, an oblique PP (?uh?at) ?uu?sh?yumsuk?i cannot move to the front of the subject, as seen in (15b) and (16b) (also see Rose 1981).

(14) Active clause
see-PAST-3sg/IND John friend-3sg/POSS
‘John saw his friend.’
see-PAST-3sg/IND friend-3sg/POSS John
‘John saw his friend.’

(15) -?at clause
see-?at-PAST-3sg/IND John by friend-3sg/POSS
‘John was seen (by) his friend/His friend saw John.’
These examples show that the PP oblique is not an argument, since it exhibits differences from an argument with respect to scrambling. This is consistent with the claim that the Agent of a -?at construction occupies an adjoined position.

2.4.3. Optional Oblique PP
Another property of an adjunct is optionality and an oblique PP in Nuu-chah-nulth exhibits this property as well: it can be omitted. (17b) shows that despite the lack of an Agent NP, the sentence is available, giving evidence that the oblique is an adjunct and thus the Agent is suppressed to an adjunct in a -?at clause.

(17) -?at clause
   yaa?akap-?at-?iš John ?uh?at Mary
   love-?at-3sg/IND John by Mary
   ‘John is loved by Mary/Mary loves John.’
      yaa?akap-?at-?iš John
      love-?at-3sg/IND John
      ‘John is loved/(someone) loves John.’

In sum, the syntactic tests of active/-?at pairs show that (i) the Agent of an active clause is suppressed to an oblique PP or omitted in a -?at clause and (ii) the Patient of an active clause is promoted to the subject in a -?at clause. However, we have observed that these syntactic phenomena are not observable in every combination of persons. The distribution of -?at is sensitive to person features. The next section considers in more detail the person restrictions that are associated with -?at.

3. The Person Hierarchy
In Nuu-chah-nulth the most salient discourse referent, i.e., the topic, must occupy
the subject position in surface structure. In a discourse context, speech act participants (SAP), which are 1st and 2nd person, are more topical than 3rd person. This is a universal phenomenon, which determines the person hierarchy. Therefore, unless the Agent is less topical than the Patient, only an active construction is available as in (18). On the other hand, if the Patient is more topical than the Agent, a -?at construction is enforced, allowing the more topical Patient to occupy the subject position as in (19). In addition, both an active and a -?at construction are available in a discourse-neutral context when the participants are all 3rd person as in (20).

love-?-at-3sg/IND Mary by me  love-1sg/IND Mary
‘Mary is loved by me/I love Mary.’  ‘I love Mary.’

yaa?akap-?atiš ?uh?at Mary yaa?akap-?-iš Mary siy?a
love-?-at-1sg/IND by Mary love-3sg/IND Mary me
‘I am loved by Mary/Mary loves me.’  ‘Mary loves me.’

yaa?akap-?atiš John ?uh?at Mary yaa?akap-?-iš Mary John
love-?-at-3sg/IND John by Mary love-3sg/IND Mary John
‘John is loved by Mary/Mary loves John.’  ‘Mary loves John.’

We can also see that, in a discourse context, if the participants are all 3rd person, an active or -?at construction is alternatively used, depending upon whether the topic plays a role of Agent or Patient. Consider the following text, which is excerpted from Sapir and Swadesh (1939), which deals with the Tseshaht dialect.

(21) qy?htaqakič tanakmis ‘What Mosquitoes are made of’
a. ...?iʔqok wawaʔat?iq... (Sapir and Swadesh 1939:15)
Lit: what he (the chief) had been told ‘what (his child) had said to him’
b. ...qʔîq?təsi qaʔhkʷaʔapʔat... (Sapir and Swadesh 1939:15)
‘what it was that brought it about that people (neighbours) were killed off’
c. ...əkwəʔiʔaʔəχ əʔəχʔapʔisʔi... (Sapir and Swadesh 1939:16)
‘the little young man approach now’
d. ...witwaʔkʔi poʔiʔsaʔəχ əʔəχʔapʔat... (Sapir and Swadesh 1939:16)
Lit: .. and the little young man was speared at by all shooting at one mark.
‘the warriors ran down to the beach and speared at him, all at once’

According to the definition of “topic” by the Prague school, a topic is a contextually bound element having to do with information known from the context, from the situation, or from general conditions of the given utterance. Also, the topical element must be definite.

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This is one of the 44 folk tales published in *Nootka Texts*. In the story, whenever a 3rd person topic plays a thematic role of Patient, a -?at construction is used. At first, in (21a), the topic of the story is the chief, whose daughter’s son is killing neighbours. In (21b), the topic is changed to neighbours, who are being killed by the chief’s grandson. In (21c-d), the topic is the young man, who is killing neighbours: in (21c), he is the Agent and thus an active construction is used, while in (21d), he is the Patient, who is caught and speared by the warriors.

As seen above, discourse sensitivity applies to a sentence which has 3rd person participants only. Also, consider the following examples: a -?at construction is preferred if one of the participants is more topical than the other, as in (22), or obligatory, as in (23).

(22) a. ?aćaq-hač kaapap Mary.
   ?aćaq-hač kaapap Mary
   who-3sg/INT love Mary
   ‘Who loves Mary/Who is it (that) loves Mary?’

   b. ?aćaʔat-hač kaapaʔat Mary.
   ?aćq-ʔat-hač kaapaʔat Mary
   who-ʔat-3sg/INT love-ʔat Mary
   ‘By whom is Mary loved/Who is it (that) Mary is loved by?’

(23) a. *?uʔmitʔiś haa yaqmitii kʷikʷixasíʔ Mary.
   ?uʔ-mitʔiś haa yaq-mit-ii kʷikʷix-as-šíʔ Mary
   3sg/pl-PAST-3sg/IND DEIC REL-PAST-3sg/REL kiss-cheek-MOM Mary
   ‘This is (the one) who kissed Mary on the cheek.’

   b. ?uʔʔanitʔiś haa yaʔanitii kʷiʔikʷixasíʔ Mary.
   ?uʔ-ʔat-mitʔiś haa yaʔ-at-mit-ii kʷiʔikʷix-as-šíʔ Mary
   3sg/pl-ʔat-PAST-3sg/IND DEIC REL-ʔat-PAST-3sg/REL kiss-cheek-MOM Mary
   ‘This is (the one) by whom Mary was kissed on the cheek.’

A 3rd person Mary occupies the object position in (22a), which is an active construction, and the subject position in (22b), which is a -?at construction. The Nuu-chah-nulth speakers strongly prefer the latter, however, when the discourse topic is Mary.

In the case of relative structures such as (23), only a -?at construction is possible. This is due to a clash between topic and focus. According to Bresnan and Kanerva (1989), the extracted element in a relative clause is focused, and elements cannot simultaneously be foci and topics. This means that in the subject extraction context, the canonical topic cannot be in the subject position, and thus passivization is enforced as in (23b). This leads to a sentence where a subject position is occupied by a promoted Patient, which provides another piece of evidence that the Patient is promoted to a subject position in a -?at construction. As a result, an extraction process occurs from an adjunct position, which is an oblique. This raises a question: is it generally possible to extract obliques in Nuu-
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chah-nulth? As we discussed above, we cannot extract an oblique from its original position in a simple sentence. Therefore, it seems that the availability of the extraction of an oblique is structure-dependent. This requires further research.

Section 2 provides much syntactic evidence that a Patient NP is promoted to a subject position and an Agent NP is suppressed to an adjunct position in a -?at construction. These two syntactic processes are typical of the passive. An apparently unique property of the Nuu-chah-nulth passive is that it is sensitive to the person hierarchy, unlike Indo-European languages (like English, German, etc.). Some previous studies, however, show that the person/animacy hierarchy is involved in the formation of passive as well (cf. Jelinek and Demers (1983) for Lummi, Forrest (1994) for Bella Coola, and Jelinek (1990) for Southern Tiwa, among others). These findings dismiss the argument that the person hierarchy is the only criterion to determine whether a construction is active or inverse.

In sum, a topic, which is higher in the person hierarchy, must occupy a subject position in Nuu-chah-nulth, and if this convention is disrupted, then a -?at construction, i.e., passivization, is enforced. On the other hand, if both the Agent and the Patient are in the same hierarchy, i.e., 3rd person, then topicality determines the proper construction: if the topic is Patient, then a -?at structure; if Agent, then an active structure.

4. Conclusion
I have investigated the morphological (and syntactic) status of -?at. The distribution of -?at turns out to be determined by person features associated with arguments of a verb. In addition, when a less topical element is an Agent, -?at appears on the predicate, and when a more topical element is an Agent, an active construction is used. I have provided evidence for both the morphological and syntactic properties of -?at. The person hierarchy explains the distribution of -?at and the grammaticality of a sentence, which is basically associated with changes of a grammatical relation of an argument. To conclude, the -?at construction is a passive sensitive to the person hierarchy.

References