Kansas Working Papers in Linguistics

edited by
Linda M. Roby

Studies in Native American Languages VIII
Volume 19, Number 2
1994

Partial funding for this journal is provided by the Graduate Student Council through the Student Activity Fee.

© Linguistics Graduate Student Association
University of Kansas, 1994
Karankawa Linguistic Materials
Anthony P. Grant.................................................................1

Word-Level Nominalization in Choctaw
Marcia Haag........................................................................57

Reflexives in Mohawk
Nancy Bonvillain..................................................................87

Proto-Algic V: Doubts and their Implications
Paul Proulx...........................................................................115

The Limit of Structure Preservation in Dakota
Lexical Phonology
John Kyle.............................................................................183

Notes on the Kansas Word List of Maximilian, Prince of Wied
Robert L. Rankin.................................................................201
REFLEXIVES IN FOURAK

Nancy Bonvillain

Abstract: This paper presents an analysis of meanings and uses of the reflexive morphemes in Fourak. The reflexive -sata- is shown to have both reflexive and reciprocal meanings. It is also realized in kinship terms and in the transitive pronominal prefix -sata- she, one, one. 'Semi-reflexive' -sata- has some reflexive functions. It can also mark middle voice and de-transitivized states or processes. Additional uses of -sata- are exemplified. The paper concludes with discussion of comparative data on reflexives in other transuranian languages.

Introduction

The reflexive morphemes in Fourak, -sata-, reflexive and -sata- semi-reflexive, each have several semantic and grammatical functions. Some of these are clearly reflexive, i.e., indicating actions or processes which affect the subject of the verb in which they are realized. The reflexive -sata- also has reciprocal meanings. It occurs as well in a set of kinship terms with a reciprocal sense. Meanings of the semi-reflexive -sata- are especially complex. This morpheme can mark a number of different kinds of relations between verb bases and their agents or patients. As will be shown, -sata- can indicate middle voice, de-transitivized processes or states, defocusing of agent, spontaneous occurrences or results, and motion or activity arcs from subject or from prototypical position. Finally, some verbs obligatorily require the selection of a reflexive morpheme as part of a frozen verb stem. Such verbs often have literary meanings.

This paper will examine meanings and uses of the two reflexives in the Aleewameen dialect of Fourak, one of six velar Northern transuranian languages. Following analysis of the Aleewameen material, comparative data from related languages will be discussed. It will be shown that evidence from Fourak corroborates some of the hypotheses offered by Webster (1975) and Shibatani (1981) concerning semantic and grammatical relations among reflexives, middle voice and passives. In other respects, though, Fourak reflexives display a unique constellation of meanings and functions.

Kansas Working Papers in Linguistics, Volume 19, Number 2, 1996, pp. 87-114
Mohawk reflexives occur morphologically within verbs, directly following a pronominal prefix and preceding the verb case which itself is composed of a verb root and an optional prefixed incorporated noun root. The structure of Mohawk verbs, then, is: modal and non-modal prefixes + pronominal prefixes + reflexive or semi-reflexive + noun root + verb root + verbal suffixes.

Only the pronominal prefix and verb root are obligatory categories for all verbs. However, non-imperative verbs (and many imperatives) contain a verbal suffix or suffixes usually marking at least aspect and potentially other kinds of meanings. Most non-habitual verbs contain one of the modal prefixes. Other prefixes express additional meanings. If reflexives are selected, only one of the two is possible, i.e., either -sor -atar. The meaning and uses of these morphemes are discussed and exemplified below. Examples of the reflexive and semi-reflexive are given, with illustration of their contrastive semantic and grammatical functions. The Mohawk data is then discussed in light of other research concerning reflexives, middle voice and related grammatical constructions. Finally, comparative material from other Algonquian languages is discussed, with a brief note of Cadetsen.

Three different sets of pronominal prefixes exist in Mohawk, all of which can co-occur with reflexives although certain verbs constrain the selection of particular classes. The three sets have, in the Romance literature following Lucombe 1953, traditionally been labelled subjective, objective or transitive. Transitive prefixes express both agent and patient in one form, e.g., -Ahe- 'I like her,' /tomah:yo'/ 'she likes him' or in /khendo'ko' 'I like him.' Subjective prefixes mark the grammatical subject (semantic 'agent') of an intransitive verb while objective prefixes mark the grammatical subject (semantic 'patient') of an intransitive verb as well as the object of a transitive verb having an inanimate or feminine neuter subject. When the meaning of the reflexive morpheme is narrowly reflexive, i.e., action by agent toward himself/herself, then transitive prefixes cannot occur for obvious semantic reasons since they necessarily express a transitive relationship between non-co-referential entities.

As will be shown, some verbs require the reflexive or semi-reflexive exclusively while other verbs may select one or the other, with a significant change in
meaning:

Reflexive: -nate

Transitive reflexive meaning: The reflexive -nate most often expresses a transitive action in which agent and patient are co-referential, i.e. action toward self. In such instances, the pronoun prefix co-occurring with -nate must come from the subjective class; subjects therefore are agents. For example:

1a. wa^7-tali:ne^2
    wa^7-k-nate-blen-e^2
    fact-1-rfz-cut-asp
    I cut myself (e.g. with a knife)

1b. Compare non-reflexive verb:
    wahaw^6hle^7
    she cut him i-hw^5a- she:himi
    iahl^e^nas
    he's cutting liiti; he's a cutter (la=

Reflexives can occur in transitive verbs which have incorporated their noun root patients:

2a. wa^7-tali:na:b^7:lala^2
    wa^7-i-k-state-who-2:blala^2-e^2
    fact-du-1-rfs-hand-press-asp
    I squeezed, stepped on my own hand

2b. Compare:
    wa^7:tahesna:b^7:lala^2
    he squeezed, stepped on my hand (t-hake- active)

Reflexives are also used in combination with benefactives in verbs where a transitive action denotes a result for agent:

3. wa^7-tali:ni:mu^2-se^2 akw^5:i:na^2
    wa^7-k-nate-b:mu:2-se^2 + akw^5:i:na^2
    fact-1-rfz-bus-bnf-asp + coat. garment.
    I bought myself a coat

Finally, reflexives appear in verbs denoting emotional states:

4. Labesna^5
    i-state-who^2
    he-rfs-like-asp
    he likes himself
Reciprocal meaning: The reflexive -atat- has reciprocal meaning in verbs denoting actions of non-singular agents. Since -atat- has reflexive meanings as well, its occurrence with non-singular pronouns could potentially be ambiguous. That is, are agents performing action toward themselves or toward each other? Meanings are distinguished, not by the reflexive which occurs in both cases identically, but rather by inclusion of a dualic verbal prefix -ak- preceding the pronoun in the composition of reciprocal verbs. The dualic prefix is semantically well-chosen for this function since it expresses the idea that more than one entity participates in the event. For example:

5a. wahnutakala ke?
   wa-hv-atat-ku-leke-
   fact-they m.du.-rfx-hit-asp
   they two hit themselves

5b. wa?hyatatku-leko?
   wa?-t-hv-atat-ku-leke-
   fact-du-they m.du.-rfx-hit-asp
   they two hit each other

5c. wa?yvkatatkwante?
   wa?-kvki-hv-atat-kohle-
   fact-du-we du.excl.-rfx-bump-asp
   we two bumped into each other

Reciprocal usage in 6a. below contrasts with a non-reflexive form in 6b:

6a. wakatsenin? y? tora?katatka?
   wa-kat-aten-
   I-be happy-asp that du-rep-fact we du.incl.-rfx-me-asp
   I'm glad that we too saw one another again. I'm glad that we too met again

6b. wakatsenin? y? ma?k?ka?
   I'm glad to see you again (ka- l:you)

If the verb base -atatka?, containing the reflexive, occurs with a non-singular agent but without the dualic, then a reflexive meaning is conveyed:

6c. k?atac yekatatkak?
   yehv-atat-ka-
   true du. incl.-rfx-me-asp
   Come, let's look in the mirror!
Since this verb lacks the dative, it must mean 'let’s look in the mirror (at ourselves)’ rather than 'let’s look at each other.’

Figurative uses: The reflexive -at- often occurs in verbs which have taken on figurative meaning, denoting events which are not literally transitive. In some cases, a reflexive meaning is still semantically isolable and obvious whereas in others it has become subsumed as part of a verb with a unified figurative sense. Several examples follow, contrasted with non-reflexive verbs:

7a. skatate[mikib]at-ik
sk-at-at-ik [mikib]-at-ik
im-p-i-ref-nom-happen-os-tal-as-p
I made myself forget (I cause to happen to my mind)

7b. sike[sikih]-ik
i-ref-nom [sikih]-ik
I forgot (nom-)

8a. wewalina[mikih]
lw-em-at-at-il-icat-nem-icat-ik
we-pl.nem-i-ref-nom-coat-be.put in
water-as-p
we all stain ourselves with it (we put a liquid coating of bad ideas on ourselves).

8b. wale[mikih]-ik
we-em-ik
you got paint on yourself

8c. lokiof okih-seke
he’s painting (it) (he’s coating + paint)

9a. yatikatate[wam]in-vatik
yat-at-at-wat-tam-o
ref-tex-nom-word-be good, nice-as-as-p
I helped myself over there too, look something from my neighbor’s house! I caused, made the word good!

9b. lowani[vatik]
he gave his full consent (to-)

10a. yokatate[mikih]-ik
yok-at-at-ik [mikih]-at-ik
nom-mem-i-ref-nom-coat-in-tal-as-p
she is tempted (she takes her mind out, it
takes her mind out

10b. likitshitokwana
    I tempt him | li- Ichimi

    rep-fact-her-rfz-punish-asp
    he's worry for it, worry about it (the punished
    himself)

    **-i-want-asp opt-rep-l-rfz-punish-asp
    I want to take out a pledge, make a pledge
    (eg, to abstain from wrong behavior)

11c. sa:khatlwi:wahte
    sa-sa:kh-st-at:hi:swa:ht
    rep-you-rfz-punish
    repent! ask for forgiveness! (punish
    yourself)

11d. ˘ike:be x-au:sa:ke:y-sa:ht-hi:swa:ht-ee
    **-i-want-asp opt-rep-l-you-rfz-punish-asp
    I want to ask for your forgiveness

In 11d., -xat- co-occurs with a transitive pronoun, -

The reflexive is not referenced semantically to the entire pronoun but only to the
asent 'I.' The verbal construction, then, has an
underlying meaning approximating 'I want to ask you that
I punish myself.'

KINSHIP TERMS: The reflexive -xat- appears in the
formation of several kinship terms. All Ndebele kin terms
are structurally verbs, each containing a pronominal
prefix, verb root and aspect suffix. The verb root
denotes an underlying consanguineal or affinal meaning
while the pronominal prefix indicates a specific status
relationship between speaker and referent (or addressee).
Most terms select transitive prefixes marking
agent/patient correlations. The elder person in the kin
pair (whether speaker or referent) is expressed as agent
while the younger is patient. For instance, khe:ta:xh
'my younger sister' (khe: father), tikosetha:'my
grandfather' (lakhe: home).

Another set of kin terms selects subjective +
reflexive pronouns. These express equality and/or
unit of the named kinsperson and the speaker. The
subjective pronoun is first person dual, yaka, when
reference is to one relative (speaker or relative) and is
plural, yaka’s, when two or more relatives are named
(speaker + relatives). The morpheme -sta- marks the cor-
relationship as reciprocal. Such kin terms include:

12a. yakatastateya’a
    yaka-state:ya’-a
we du-rfx-be kin-asp
we two are related, we’re relatives, s/he is
my relative, my relative

12b. yakatastateka’ya’a
    yaka-state:ka’-ya’a
we pl-rfx-have a younger sibling-asp
my siblings, we are all siblings

12c. yaka/stateka’ya’a
    yaka-state:ka’-ya’a
we du-rfx-have an child-asp
me and my daughter or son or mother or father
(any group of two of us, parent and child)

Similar kin terms can be constructed with third
person dual or plural subjective pronouns + reflexive
in reference to relatives of another person. Among these
are:

12d. yaka/stateka’ya’a
    yaka-state:ka’-ya’a
they pl-du-rfx-have a younger sibling-asp
her sister

12e. bua/stateka’ya’a
    bua-state:ka’-ya’a
they pl-rfx-have a child-man-divers
they are parent(s) and child(ren) (group of
three or more)

Finally, although most kin terms have the same basic
construction in reference or address (except for change in
the aspect suffix, e.g. bua/stateka’ya’a ‘my grandfather,’
also ‘grandfather’), a revolving optional form exists
for sibling address terms, instead of the transitive
pronouns he- ‘thunder’ or li- ‘him,’ the subjective
prefix expressing first person dual inclusive + reflexive
is possible:

12f. bua’/ka’ yaka/stateka’ya’a
    bua/ka’-state:ka’-ya’a

we dual -ref-frame as younger sibling -swap

hello sister! hello brother!

This usage has an obvious pragmatic rationale, signifying, as it does, a reciprocal social relationship between speaker and addressee.

Transitive pronounal -vutar-: The reflexive -stat- occurs in the composition of the transitive pronounal prefix -vutar- which expresses feminine indefinite agent 'she, one' and a non-identical feminine indefinite patient, 'her, one' (see note 3). This pronounal consists of the subjective marker -ve- she, one + reflexive -stat- and undergoes regular Mohawk morphophonemic changes whereby ve --- > mi with subsequent loss of -ve-. For example, vutar:temiwe a leke likes her - vutar:wa:leke she will hit her.

These words, and others similarly formed, are ambivalent between transitive and reflexive meanings since the transitive pronounal is internally composed of subjective -ve- + reflexive -stat-. For instance, vutar:temiwe can mean 'she will hit her' or 'she will hit herself.' The two senses can be distinguished contextually or lexically for a transitive meaning by specifying referents. In such constructions, agents precede verbs while patients follow.

li:4. katel: Auyatuk:leke? ne5 sena
   Catherine will hit Teri
li:5. katel: Auyatuk:leke? nē5:le
   Catherine will hit her
   she's the one who will hit her

Reflective meaning cannot be specified lexically since Mohawk does not have a separate word for self. However, it only an agent is realized, as in katel: Auyatuk:leke?, the construction is given a reflexive rather than transitive reading, i.e. 'Catherine will hit herself.'

Semi-reflexive -rat-:

Some reflexive -rat- has a number of meanings and usages. The semantic connection among its various senses is not easily summarized. Some occurrences have a reflexive meaning in which agent (if subjective) or
patient as objectivizer is instigator or experiencer. Other uses of -at- indicate a kind of middle voice. One such use encodes the "involvement" (Barber 1975:17) of subject in the action. In these verbs, the subject performs the action but also receives some benefit or is in some other way affected by their action (ibid. 129).

Another kind of middle voice signaled in Mohawk by -at- occurs in verbs in which an agent is assumed but not explicitly marked. In these verbs, agents are defocused and ultimately suppressed, raising patients to subject. In such detransitivized verbs, objective pronouns (expressing patient subjects) are employed.

In addition to these functions of -at- which relate in some way to voice, -at- can occur in verbs denoting a nonagentous occurrence or state. Another use of -at- is to mark activity or movement away from agent or prototypical position. Finally, some verbs require inclusion of -at- as part of a frozen verb base. These verbs never occur without -at- and therefore are not contrastive. Throughout this section, contrastive examples will be given where possible.

One usage of -at- signifies a reflexive event in which an agent acts toward him/herself. These verbs have transitive bases, although some have been detransitivized and functions as intransitives. Figurative senses can be produced by this use of -at-:

14a. wa'at'nahso?re
    fact-he-strx-hide-asp
    he hid himself
14b. wa'at'nahso?
    she hid it (on herself)
15a. wa'at-kwakso?khshsh? 
    fact-du-they m-du-strx-border-under-asp
    they too separated, divorced
15b. wa'at-kwakso?
    I took it apart, separated it into two pieces; -ku-1)
16a. isnekwa sath'ex?nt
    isnekwa sath'ex?nt
    slide over there! move over there!
18a. suthnaweljni
sawet [-house] -inni -i
she, one -srfx -well -make, build -asp
she’s digging, making a well by herself

18b. rehnaweljni
she’s digging a well someone unspecified is helping her: ye - she, one

19a. tesatohtunon kaf
tes -s-at-obtaho -s
do - you wa , - srfx - clean -asp + int
are you cleaning up? (implies a big job)

19b. tesatohtunon kaf
are you tidying up? (s- you)

The following sentence, using the verb -nhale- ‘wash’ is directly contrastive for the semi-reflexive:

20. wa’tkukenhunahle
 fact - 1 -srfx -wash -asp

wa’tekohtahleni
wa’teko-ka -ohale- nun -i
fact - 1 -dish - clean -dst - asp
I washed the floor first, then I washed the dishes.

Here, washing a floor inherently requires more energy, time, etc., than washing dishes and therefore selects the semi-reflexive.

An important use of -at- marks a kind of de-translative event or state derived from a verb whose basic non-reflexive meaning is a transitive action. These are middle voice or passive constructions. They involve a 'decrease in semantic valency of an agent', to the extent that no agent is present (Tsubota 1985:249). In Mohawk, morphologically or syntactically-marked passive constructions do not occur. Instead, one function of the semi-reflexive is to express middle voice or de-translative meanings. Therefore, some shifts in transitivity or voice are realized through use of -at-

The semi-reflexive co-occurs with animate patients (in objective case) to indicate a passive experience of an event or process. Agents are suppressed. Figurative senses can be produced by such use of -at-. The following examples contrast verbs containing -at- and non-reflexive transitives employing the same verb roots:

21a. waːtewakatenhyanthaː
waːt-te-wak-te-nhyany-θiː-θ
fact-die-sets-oxidate,be extreme-sap
I was shocked (it was exaggerated, extreme to me)

21b. tehanhyanthaʔ
he's an exaggerator i-ha- he1

22a. vaakatenhyanthaː
ya-te-taː-θa-a-θ
she,one-sits-burning cinders-fall down-drown-sap
she is drowned in hell, she's gone down into the fire

22b. yaṭkili:Ahteʔ
I made burning cinders drown down (eg. into a river) -kli-

23a. vaakatenhyantahaʔ
ya-te-taː-θa-a-θ
one-sits-burning cinders-fall down-drown-sap
I'm being patient it's making my mind nice, well

23b. wamnikeiyohnaʔ
she makes the day nice in- she,its -whistle- day
The verb base in 23a, *qibw-ize* - 'be nice-minded,' can contrast with a non-reflexive, non-causative construction. When the base co-occurs with -at- + causative (23b.), it describes a specific event entailing an on-going state which may or may not have preceded or be expected to endure. However, when both affixes are lacking, e.g., *waqibwiljlo* 'I'm patient (my mind is nice, good) the verb denotes a generalized state of being or an inherent characteristic.

When -at- co-occurs with intimate patients as grammatical subjects (marked by objective pronounal), verbs denote results of processes. Agents are unexpressed: patients fulfill semantic roles as experiencers. In these cases, verbs are either in punctual aspect, indicating a single event, or in perfective state aspect, indicating a generalized resultant state:

24a. ve-loloku
   ve-vo-to-lot-an
   they-shall-gather-asp
   it's gathered, accumulated there

24b. selollok
   gather it! (see you)

25a. aesthitohshu
   a-se-w-at-lihsh-aj
   fat-rep-shake-it-stir-up-asp
   it will be undone

25b. aesthitohshu yahsh}
   the world will become undone [-at- sr{x} - unhala- 'world, earth']

25c. yahsh}
   be undid it! (ha- ha)

The semi-reflexive can be employed to mark an activity which occurs spontaneously or a state which results from unspecified, spontaneous conditions:

26a. wa[h]utohshu
   wa[h]-ku-t-ohra:1-aj
   fact-they [pl.-srfx-grow, raise-asp]
   they all grew up

26b. sahshu
   make it grow! raise it! (is- you)
26c. I raised her, I’m the one who raised her
(1.3: 1; -khov- = fisher)

27a. tevishliku?
hev-t-vaik-u?
du=shelit-srfx-break in two pieces-amp
it’s broken into two pieces

27b. hüğvafrê
u²-k-safk-e²
Fact-shelit-srfx-break-amp
it broke

The verb in 26a. denotes breaking but does not specify an agent. It implies that an event occurred without an immediately direct agent although some agent may be responsible for starting the process of breaking. This verb could be used, for instance, to describe the breaking off of a pole in the ground which rots and finally breaks at ground level (into two pieces).

The verb root -va²k- ‘break’ can co-occur with incorporated noun roots in either semi-reflexive or non-reflexive constructions indicating a contrast between a spontaneous result without stated agent (semi-reflexive) and a direct action with explicit agent (non-reflexive). Remarke the following verbs having animate subjects:

27c. wa-bunitahabu²f
wa-h-un-itahabu²k-e²
fact-shelit-srfx-tail-break-amp
his tail broke off, fell off

27d. wa'taynske²
wa'tanaynske²
I thought I broke my leg (1-ka-1: -e:in- leg)

A further use of -at- is attested in verbs denoting change in body position away from the prototypical position of upright posture, e.g. sit down, kneel down. In these cases, the semi-reflexive verb emphasizes the process of changing position while the non-reflexive verb signifies the resulting state:

28a. wa'takhtu²ləhu²
wa²-l-h-at-al=soil-amp
fact-shelit-srfx-kneel-amp
I kneel down

28b. tevakhalu²shu²
she's kneeling down 1-yak- she,one

24a. sanitsk6:A
    s-an-it-sk6i-t-A
you nd.-nrks-sit-asp
got down!

29b. lit-sk6o7 ade?
I am sitting down (k- l; wa7 emphatic)

Another use of -at- which may be related semantically to that shown in 28 and 29 occurs in the differentiation of verbs meaning buy/sell and borrow/lend. In these sets, -at- marks movement of goods away from agent (sell, lend) while the non-reflexive verb denotes movement toward agent (buy, borrow). Compare:

30a. wa'katsh6i:nit
    wa'k-at-sh6i-nit-7
    fact-l-sell-buy-asp
    I sold it

30b. wa'eh6i:nit
    she bought it (o- she,one)

31a. wabatsh6i7
    wa'b-at-sh6i-t-A
    fact-he-sell-borrow-asp
    he lent it out

31b. wahana7
    he borrowed it (ha7 he)

The semantic similarity between these examples and those in 28 and 29 is suggested by the fact that in both sets the semi-reflexive marks verbs which encode "movement away", i.e. movement away from agent (sell, lend) or away from prototypical human position (lay down, kneel down).

In constructing some transitive verbs, realization of -at- is correlated with incorporation of a noun root indicating direct object. These names can be literal or figurative:

32a. wa'kalo7taluts7A
    wa'k-al-to7tal-u7-t-A
    fact-l-sell-bread-put in, attach-asp
    I baked bread (put bread inside)

32b. wa'kuts7A
I attached it, put it inside (k- l)

33a. Inaniñtə:ltas l-añi⁻l-aši\'lə:ltas
be-arfx-fish-hunt-asp
he's a fisher, he fishes

33b. Inait:le:ltas l-æri⁻fibro-aši\'lə:ltas
be-arfx-idea-hunt-asp
he's a gossip, he gossips

33c. Utelo:ltas
she's a hunter, she hunts (vu- some-1)

33d. Kwbo ulawat\'hi³wšu⁷\'\'e\'³-ta\'\'i:la: na\'\'e\'³ kiro\'\'i\'\'e\'³
ukw-æri⁻lipro-nobu⁻ta\'\'i:la: wa\'\'e\'³ k-voh\'\'e\'³
very fact-1-argfx-idea-lose-buf-asp what fact-1-work-asp
I lost interest in what I was doing

33e. Ukaw̱i\'l\'u\'a\'³
I lost it, it disappeared to me (ukw- fact-1)

Reflexive/semi-reflexive contrasts

Some verbs can select either -stat-, or -at-, significant semantic changes in the unitary meaning of words result from realization of each morpheme. Several comparisons follow. In the first, verbs entail differences in passive or active role of subjects. In 35a., with semi-reflexive -at-, the subject undergoes a process while in 35b., with reflexive -stat-, she initiates the process which affects her reflexively. This contrast highlights use of -at- in a middle voice construction while -stat- is employed for reflexive meaning. Furthermore, the semi-reflexive verb signals less control on the part of subject or experiencer (see Jelinek and Bemers 1983 for discussion of middle-passives and lack of control.)

35a. Wakan\'lìطفال\'\'i\'\'a\'³
wak-at-ukal-un:i\'\'a\'³
l-argfx-suffer-make-asp
I had a misfortune, a misfortune happened to me

35b. Yakot\'lìymology\'\'a\'³
yako-æri⁻lipro-muk\'\'a\'³
she, one-argfx-suffer-make-prog-asp
she continually, repeatedly brings misfortunes
Another example of contrast between active, voluntary instigation, marked by -\textacuten-, and unspecified, uncontrolled emergence of a process, marked by -at-, involves the verb root -\textacuten- 'make, build.' With neither reflexive prefix, the verb denotes a transitive action, e.g. bughi 'he'll build it' (-hu- he). The verb with -\textat- indicates a spontaneous event or state with suppression of agent while -\textat- (36b) indicates controlled, deliberate activity:

36a. kat\textacuten\textide
ts\textacuten\textide
l-srcx-make-asx
I am born

36b. ak\textis\textide
vako\textat\textide
pig
she srcx-make-asx
she made herself into a pig

This sentence has a number of associated nuances: she dressed up like a pig; she turned herself into a pig (she's a witch and transforms her bodily form); she eats like a pig. The verb in 36b can further contrast with a semi-reflexive form, highlighting the significant difference in activity. In 36c, the agent is decontextualized:

36c. ak\textis\textide
l\textat\textide
pig
he srcx-make-asx
he became a pig, turned into a pig, was made into a pig

In both 36b and 36c, the subject is expressed as patient, with objective pronoun(s), indicating that she experiences the result of an action or process. However, in 36b, with -\textat-, the patient voluntarily undergoes the process, in fact causing it to happen, whereas in 36c, with -\textat-, the patient is a passive experiencer.

In the next contrasting set, differences among the verbs seem to entail more focused concentration and self-involvement in reflexives (37c, 37d) as compared to non-reflexives (35a, 35b) and a deeper internalization and affective state in the reflexive (37a) as compared to a semi-reflexive 1.37e,c:...
57a. saṃghikālaḥ
saṃghikāla-rājak
saṃghikāla-saṃghikāla
you sg. mind-watch,guard-cont
be careful!

57b. te-hiṃnikhūhāya
du-lān-mind-watch,guard-asp
I'm bothering,disturbing,worrying, pestering him

57c. saṃghakālaḥ
saṃghakāla-saṃghakāla
l-srfx-mind-watch,guard-asp
I was careful about it, guarded it, watched out for it

57d. te-saṃghakāla
du-lān-mind-watch,guard-asp
I'm worrying, I worried about it.

A final contrast presents verbs containing the base for 'lock,' -matālikā. Without reflexive morphemes, the verb has a simple transitive sense, e.g. Am軍- gases-hāloke 'he'll lock it.' With -nt- and an animate patient as subject (i.e.,), the verb denotes a spontaneous, uncontrolled event in which the agent is decentered. It refers to self-locking, as when a lock repeatedly gets stuck or is locked without animate intervention:

58a. watasyāsālikā
sā-rāja-nt-āsālikā
matālikā-it
lock
it, keep locking itself

Next, compare the following two verbs with animate agents. The first, dhāha, contains -nt-, the second, contains -nt-:

58b. watasyāgūbālikā
sā-rāja-nt-āgūbālikā
matālikā-it
fact-l-srfx-lock-asp
I locked myself in

58c. watasyāgūbālikā
sā-rāja-nt-āgūbālikā
matālikā-it
I locked myself out
The contrast here seems to differ from the distinction shown in verbs for buy/sell, borrow/lend and sit down, kneel down (see examples 28 through 31). In these cases, the semi-reflexive contrasted with non-reflexives to indicate movement away from subject (self/level) or prototypical position (sit down, kneel down). In 38b, "I locked myself in," -self- indicates inward activity or possibly activity toward prototypical place (inside), ex. inside one's house, whereas in 38c,

"I locked myself out," -self-, which in a reciprocation of role, indicates outward activity or activity away from prototypical place.

Discussion

Evidence from Mohawk suggests an association among various functions of reflexives and the creation of middle voice, detransitives and defocusing of agents. Shibatani (1985) demonstrates similar interconnections among these grammatical constructions in a wide sampling of languages from Europe, Asia, and the Americas. Shibatani suggests that reflexives and reciprocals are fundamentally related to passives, the prototype of which entails defocusing of agents (1985:2071). Since there are often "...semantic and syntactic similarities among passives, reflexives, and reciprocals, for some languages, these similarities are sufficient to permit one form to perform the functions of the others" (ibid:184). In Mohawk, in the absence of distinctive passive formations, reflexive morphemes are sometimes employed to indicate passive meanings, both with animate subjects (e.g., "I was shocked") and inanimate ("it's gathered there").

Shibatani further correlates reflexives with middlepassives which express spontaneous events, denoting activities or states which occur automatically or without intervention of agents (ibid:227). Mohawk -et- fulfills this function as well, ex. "they all grew up."

Some Mohawk verbs with semi-reflexives indicate states resulting from actions or processes. Agents may be implied but are not explicitly encoded, ex. "it broke into two pieces." Other verbs can have stative surface meanings, ex. "I'm being patient," Both Egan (1996:194) and Howes and Penner (1981:351) claim that middle verbs in Mohawk are essentially of this type, i.e., stative. Although Mohawk semi-reflexives can signal stative meanings, the morphemes have a wider range of functions. Furthermore, many surface statives such as "I'm being patient" have underlying transitive bases ("I'm making
In a study of Kavuken Athanassian, Thompson (1989) draws a connection among reflexives, reciprocals and passives (and causatives), based on the fact that they are "...involved in constructions related to transitivity" (1989:31). In Mohawk, reflexives are employed to signify transitive actions toward self or to mark detransitivity. Thus, verbs which have basic transitive meanings can be rendered intransitive (e.g., 'slide, move over there').

Finally, Jelinek and Demers (1983) suggest a use of middle voice to mark "...teen control on the part of the subject of the sentence" in some Coast Salish languages (1983:192). Some Mohawk examples attest to this function of semi-reflexives as well (e.g., 'I had a misfortune'). Such constructions contrast with the responsibility and control signalled by reflexives ("she continually brings misfortune on herself").

For European languages, Barner (1975) describes middle voice as a "...strategy for marking identities between the surface subject and other NPs in the sentence" (1975:17). In middle voice, non-sentience NPs are raised and merged with subjects. Reflexives in Mohawk perform this function in their role to mark actions by subjects which affect themselves or each other. They also mark an action which subject performs for his/her benefit. Indeed, one of Barber's Greek examples has an exact parallel in Mohawk. Note the following (ibid:18):

hair-somei mora

take-middle voice share

I choose it (take for my own benefit) a share

In Mohawk, sah-rate-ta-se: 'he kept it (chose it for himself)' is formed on the same principles.

Barber points out that middle voice, reflexive, reciprocal and passive constructions all share a semantic feature which distinguishes them from true active voice, i.e., they all refer to events in which subjects are somehow affected by their actions (ibid:20). In true active, in contrast, subjects are not affected by their actions.

However, the ways in which reflexives and other constructions affect their surface subjects differ. In reflexive formations, subjects affect themselves; in
reciprocals, subjects affect each other; and in middle voice and passive, subjects are affected by external agents which may or may not be explicitly mentioned. Some of these distinctions are noted in Mohawk. For example, reciprocal meanings are conveyed by -at-, reflexive meanings are signaled by either -at- or -at-, both co-occurring with subjective pronouns; middle voice and passive meanings are marked by -at- co-occurring with objective pronouns.

The role of -at- as an indicator of voice is a demonstration of Hopper and Thompson's (1980) thesis concerning degrees of transitivity. As they explain, reflexives have "...an intermediate status between one-argument and two-argument clauses (1080:277).

Reflexives are higher in transitivity than prototypical one-argument clauses (intravisitive) yet lower in transitivity than prototypical two-argument clauses (true transitives). As the data above has shown, the semi-reflexive in Mohawk performs functions which decrease the transitivity of many verbs (e.g. I had a misfortune; slide over there!)."

Barber suggests that in Indo-European languages, reflexives, reciprocals and passives develop diachronically from middle voice. In these languages, such as English, reflexives and reciprocals arise through the development of specialized pronouns. Middle voice is a verb has become realized through passives (1975:212-221). It may well be that in Mohawk, the reflexive -at- is a reduplication of and historically derived from the semi-reflexive -at-, the latter pronoun having a productive function in middle voice constructions.

Comparative Evidence

Northern Iroquoian: Mohawk reflexives -ata- and -at- have analogues in all Northern Iroquoian languages. Interpreting phonological shapes are identical although same allomorphic rules diverge. In languages most closely related to Mohawk, i.e. the Five Nations of Ontario, Seneca, Onondaga, Iroquois and Canio, basic reflexive forms and grammatical functions are the same (see Lyons 1969:72-75 for Seneca; Chaunce 1967:26-37 for Seneca; Chaunce 1970:104-108; and Lyons 1969:72-75 for Onondaga, Lyons estimates that these Five Nations languages separated historically from the other Northern branches of Iroquoian at least approximately two thousand years ago (1978:352). For Tuscarrora, Williams (1974) describes one reflexive, -ata-, which has both reflexive and reciprocal senses, e.g. takagnah - we two see ourselves
opposing each other" (1976: 601). Evidently, the dualistic prefix, which does exist in Tuscarora, is not used to discriminate these meanings as it is in Mohawk and other Northern Iroquoian languages. Hodges (1981: 81) exemplifies two reflexives in Tuscarora and the closely related but now extinct Nottoway, earlier spoken in Virginia and known through word lists collected by John Wood in 1820 (1841: 67). Allomorphic rules in Tuscarora and Nottoway differ from those of the other Northern Iroquoian languages, a result of overall sound changes. From Hodges' data, sát-s has both reflexive and reciprocal meanings while sat-s' has reflexive and other functions similar to those operating in Mohawk. Among Hodges' examples are: 'it struck itself' in T: Shá: l ká: hi:nk and in N: má:ntrarncrow; 'your own ear' in T: Shá:ł:xónak hí: and 'from oneself' in N: má:ntrarncrow (1841: 67, 10).

Two additional Northern Iroquoian languages no longer spoken, Huron and Wyandot, also had reflexive and semi-reflexive morphemes, evidently with forms and functions similar to those in present-day Mohawk. Among Harbeck's examples from Wyandot, spoken until recently by Oklahoma descendants of Aboriginal Huronian peoples of Ontario, are: a-ta-ag:rin 'I-self-office hold' and h-(xíl)á:nt-á:va'n 'he-to self-hair horns' (1915: 18).

Another extinct Northern language, currently known as Laurentian (Lounsbury 1978: 335), has some thirty-sixth-century documentation added to journals of Jacques Cartier. J.A. Coult cites the following words from Cartier's lists and from nineteenth-century sources: 'look at me' (regarde-moi) in N: lángkà:rtó and huronian: mágéwehó (1882: 188). This example attests to realization of -at- in the latter language.

The fact that reflexive functions are used in Mohawk is shown by another work of mine. In discussing reflexives in nineteenth-century Mohawk, he notes that sát-s' had both reflexive and reciprocal meanings and that this dualism was used in reciprocals with non-singular subjects (1981: 117). According to Coult. a-t- functioned to render verbs passive but also occurred in dependent verbs (verb stem dependents) which have passive form but active meanings (ibid: 117-118).

Cherokee: Southern Iroquoian is represented by Cherokee, spoken in North Carolina and also by descendants of the aboriginal population who now reside in Oklahoma. Lounsbury estimates branching of Cherokee from the Northern languages to have occurred approximately 3000-
1966 years ago (1978:334), like Northern languages, Tchumko has reflexive and reciprocal markers. Revuhn describes a reflexive -self- which is positioned following a pronominal prefix and preceding a verb stem (1978:287). From his examples, -self- seems to have reflexive meanings when the subject is singular and reciprocal meanings when the subject is dual or plural.

For instance, 
- vugidgoviyo 'I am teaching myself'
- degugovido 'another and I are teaching each other'
- damaugovida 'they teach each other'

(1978:286, 298, 270). In these examples, verbs with non-singular subjects contain a prefix -d- which Revuhn earlier defines as "plural" (1978:178) and which is unique to Mohawk dualic prefix -s- co-occurring with non-singular subjects - reflexive -self- to render a reciprocal rather than reflexive meaning. Revuhn does not cite examples of -self- and dual or plural subjects without the prefix -s-. Since he does not give any attention to this issue, it is not possible to know whether such co-occurrences may or may not exist, or to know how one would express reflexive meanings for non-singular subjects.

Revuhn's material reveals another form which has some reflexive as well as other functions. It is realized as -sulf-, -sull-, and -sul- in contrasting situ

- mivkugovida 'I am sharing him' and mivkugoviyo 'I am sharing myself' (1978:274). Other examples of this prefix are:
- vugidgoviyo 'I am combing my hair'
- degugovida 'I am happy' and degugoviyo 'you habituate dance' (1978:55, 171).

In an analysis of Tchumko text material, Walker presents the prefix ali- (< aff) which he translates as 'with reference to oneself' (1978:221). It occurs in numerous examples with reflexive meanings including:
- aflu:stalia "I am helping myself" (compare:
- kawé:stalia "I am helping them";
- aflu:stalίia "I am being eaten" something is feeding itself on me; and
- aflu:stalίia "sit down!"

These Tchumko materials show close resemblance to Mohawk reflexives, encompassing similarity in phonological form, structural position within verbs, and overlapping of semantic functions. The data obtained add to the antiquity of reflexive marking in Tchumko.

Context: Since that (1976, 1978) has suggested a historical connection between Tchumko and Tsimshian, it is relevant to turn briefly to Tsimshian languages for
evidence of reflexive forms. In Chafe's discussion of Caddoan and Lenapean relationships, he illustrates a correspondence between the Seneqa semi-reflexive -at- and Caddo benefactive -t-.

In addition to phonological resemblances, Seneqa semi-reflexive and Caddo benefactive share structural similarities since both occur as "leftmost constituents of verb bases" (1976:52). Both follow phonemic prefixes. Chafe further draws a parallel in their semantic and grammatical functions, i.e., they "affect transitivity in some of their occurrences," although in opposite ways. The Caddo 'benefactive' sometimes transitiveizes bases otherwise intransitive, while the Seneqa element sometimes has the opposite effect (ibid).

Among Chafe's Caddo examples of benefactives -at- is sometimes realized as -et-, an alternation attested in Lenape reflexives preceding the vowel -i-. Chafe notes that Seneqa benefactive also has a possessive sense. For instance, ba-ku-za-ka-nat-y-ah, 'the belt is present to me,' has a "belonging" meaning similar to the Seneqa example, saame-ka-nat-y-ah, 'he has it, the cause it for himself.'

In his review of the Caddoan family, Chafe (1979) reconstructs proto-Caddoan benefactive as -et- or -et-. It occurs in Northern Caddo -at- or -et-, but not in Wichita, as noted by Coles (1931). Chafe suggests that the -et- was "originally part of an agreement prefix," and links this form to Latin semi-reflexive -at- ('are' or 'are') which "may also have picked up its vowel from preceding agreement prefixes" (ibid:200-21).

In some cases, comparative evidence indicates possible connections among Lenapean and Caddoan morphemes which share similarities, although not identical, in phonological shape, structural position within verbs, and in semantic and grammatical functions. Although data are not definitive, they are suggestive and supportive of hypotheses concerning initial relationships. Increasing research in comparative reconstructions of grammatical and semantic categories will hopefully provide confirmation of these hypotheses in the future.
NOTES

1. The language examined come from Akwesasne Mohawk, spoken at the Akwesasne 1st, Leniati Reserve, located in northern New York State and in Canada in Ontario and Quebec. The Reserve has a total population of approximately 10,000, possibly half of whom are speakers of Mohawk with varying degrees of proficiency.

2. For discussion of the structure of Mohawk verbs and other details of grammatical and phonological features of the language, see Bonvillain 1972. A number of Akwesasne Mohawk, and Beatty 1974, Mohawk Morphology, the latter is an analysis of the Kahnawake dialect.

3. There are two "feminine" pronoun prefixes in Mohawk, one denotes female humans, animals and nonmale objects (feminine neuter), the choice of prefix in reference to female humans follows certain general rules of social etiquette, concerning such specific age, status and affectional relationships. Biographical usage also is a factor.

4. The reflexive is realized in a number of allomorphic shapes: -rr- , -tt- , -rr- , -rt- , -tt- , -tt- , -tt- , -tt- , -tt-. Similar allomorphy operates for the semi-reflexive: -rr- , -tt- , -rr- , -rr- , -rr- , -rr- , -rr- , -rr- , -rr-. Briefly, prefix-initial -rr- is lost following vowels; an apocope -rr- is added preceding consonants; -rr- → -rr- &; -rr- → -rr-

5. In morpheme segmentation, the following abbreviations are used for verbal affixes:
   Suffixes: pre-aspect, suf-benefactive, cov-comitative, pre-progressive, cont-continuative, pmr-reversive, dist-distributive.
   Also, non-nominalizer, int-internonative.

6. Ambiguity between reflexive and reciprocal meanings is widespread in diverse languages. For example, Shibatani (1985:826) cites data from Spanish, Russian,
Seebauer, Traupé and Teitelbaum (Note 1). Also, French so can have both senses when used with non-singular subjects. Finally, see Kalinichenko for a discussion of subjunctive and conditional constructions in English, French, and Russian.

7 See Shibatani (1985:827-928) for examples of use of reflexives to denote spontaneous events or states in Spanish, French, Russian and Quechua.

8 The Yokhok pattern of employing -at for "resultative" contrasts with some data from Japanese discussed by Nishitani (1984). In a paper on transitivity in Japanese, Nishitani noted that events like "stay/sell" ...have more control over events than the receiver, the buyer" (1984:83-85). Hence, in Japanese constructions involving giving/selling, direct nominaive/accusative marking (typical of transitive clauses) on their two NPs while these involving receiving/buying take nominative/nominative marking (indicating lower transitivity). The distinction in Yokhok seems to stress a different semantic concept, since -at signals decreases in transitivity. Its use in 'sell/ lend/ mail' must be based on a different principle. Moreover, some verbs with -at indicate subject's lack of control (e.g., lend a number, a misfortune happened to me). These facts suggest that the semantic basis for use of -at in 'sell/ lend/ mail' is more likely derived from concepts of movement as discussed in section 2.0.

9 Furthermore, Yokhok interest in movement related to prototypical place of direction is also attested in verbal prefixes called "indicative" and "translocative." Among the complex contrastive uses of these prefixes is that the translocative can signify movement toward prototypical place (e.g., ground level), e.g., descend from uphill, come up from a hole in the ground. In contrast, translocatives can denote movement away from ground level, e.g., climb up into a tree, descend into a basement. See Monivain 1981 for further discussion.

5 In a comparative note, the prefix *-an in Old Norse and Induscan cited in Dooper and Thompson (1985:287) has quite similar functions to Yokhok -at-. It is used to express locative verb stems (to hang something up) to be handed to mark ensuing states (to bear fruit), and to express reflexive and reciprocal meanings (to exchange rings, clasp hands, share ownership).

10 For discussion of phonological reconstructions for Proto-Indo-European and subsequent sound changes in the
Note that the Northern morpheme -sat- is realized phonetically as -sat/-yat and -yat/-yat.

In a study of Catamina in Takanan Language of Bolivia, Camp describes a reflexive construction which, in addition to reflexive and reciprocal meanings, also can be used without co-referential subjects and objects to express possessive, benefactive or locative roles (1983:55).

REFERENCES


Thompson, Chad. 1988. " Pronouns and voice in Kutenai

