Chapter 26

Reflexive prefixes in Oneida

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Oneida expresses coreference (or coindexing) by means of two verbal prefixes: the reflexive and the semi-reflexive. Coindexing is strictly a matter of morphology; there are no reflexive nominals, and the verbal prefixes are not grammatical voice morphemes. Both prefixes have other functions as well; for example the semi-reflexive derives anticausative verbs and verbs of nontranslational motion, and the reflexive can express reciprocity.

1 Introduction

Oneida (Northern Iroquoian), a polysynthetic language of North America, expresses coreference (coindexing) within a clause morphologically by means of two prefixes to the verb stem: the *reflexive* prefix *-atat-/-atate-* and the formally related *semi-reflexive* prefix *-at-/-ate-/-atʌ-/-an-/-al-/-a-*.[1] There are no reflexive nominals in Oneida. Verb forms with the reflexive and semi-reflexive prefixes are given in (1) and (2). The pronominal inflections in (1a) and (2a) mark a relation between two distinct animate arguments: first person exclusive plural acting on third person masculine singular in (1a), and first person singular acting on third person masculine singular in (2a). The pronominal inflections in (1b) and (2b) mark a single animate argument. The verb form in (1b), with the reflexive prefix, is inflected with the pronominal prefix that marks a first person exclusive plural

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[1] The term "coindexing" is used here rather than "coreference", following the cogent critique of the term "coreference" in the context of (reflexive) pronouns in Bach & Partee (1980) and subsequent work.

argument, and the verb form in (2b), with the semi-reflexive prefix, is inflected with the pronominal prefix that marks a first person singular argument.[2]

(1) The reflexive prefix

    a. *waʔshakwaste·líseʔ*
        waʔ-shakwa-stelist-eʔ
        FACT-1EX.PL>3M.SG-laugh.at-PNC
        'we laughed at him' (Michelson & Doxtator 2002: 670)

    b. *waʔakwatateste·líseʔ*
        waʔ-yakw-**atate**-stelist-eʔ
        FACT-1EX.PL.A-REFL-laugh.at-PNC
        'we laughed at ourselves' (Michelson & Doxtator 2002: 135)

(2) The semi-reflexive prefix

    a. *wahitsiʔnyuhklo·kéweʔ*
        wa-hi-tsiʔnyuhkl-okew-eʔ
        FACT-1SG>3M.SG-snot-wipe-PNC
        'I wiped his nose' (Michelson & Doxtator 2002: 737)

    b. *waʔkattsiʔnyuhko·kéweʔ*
        waʔ-k-**at**-tsiʔnyuhkl-okew-eʔ
        FACT-1SG.A-SEMIREFL-snot-wipe-PNC
        'I wiped my nose' (Michelson & Doxtator 2002: 278)

Reflexive meaning in Oneida is expressed exclusively in the verbal morphology. However the reflexive and semi-reflexive are not grammatical voice morphemes; although they do express meanings that in other languages are associated with reflexive or middle voice, there is no evidence for an inflectional voice category in Oneida. In addition it should be noted that the functions of the reflexive and semi-reflexive prefixes are not restricted to coindexing. This is especially

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[2]In the Oneida orthography the vowel ⟨u⟩ is a high-mid back mildly rounded nasalized vowel and ⟨ʌ⟩ is a low-mid central nasalized vowel. A raised period indicates vowel length. Underlining indicates devoicing, a common phenomenon at the end of an utterance. Single inflected words are from Michelson & Doxtator (2002); in a few cases a form with a different pronominal prefix is given for ease of comparison. Longer utterances are excerpted from the recorded texts published in Michelson et al. (2016); excerpts are followed by the name of the speaker, title of the recording, and page and sentence number from Michelson et al. (2016). Note that in the excerpts not every particle is glossed; a sequence of particles may be translated into English with a single word.

so for the semi-reflexive, where the outcome of affixation often has an unpredictable semantic component. Oneida does have independent personal pronouns, used primarily for emphasis and contrast, but there is no reflexive pronoun.

The next section of the paper provides a very brief overview of Oneida morphology that is relevant for understanding the interaction of the reflexive and semi-reflexive with verbal pronominal marking. §3 describes the functions of the reflexive, and §4 is about the semi-reflexive. §4 also compares the distribution of the various forms of the two prefixes. §5 describes how participant roles interact with coindexing, including alternative structures to coindexing for certain roles. The last section ends the paper with some final observations.

2 Background

Oneida is a Northern Iroquoian language spoken by fewer than forty speakers who learned Oneida as their first language. Historically the Oneida nation was located in upstate New York, just east of Syracuse, but in the 1800s groups moved to southwestern Ontario and to northeastern Wisconsin near Green Bay. While today the Oneida, or Onʌyote'a·ká· (People of the Standing Stone), reside in all three locations, Oneida is spoken by first-language speakers only at the Oneida Nation of the Thames territory in Ontario (Figure 1).

Oneida is a polysynthetic language and like other Northern Iroquoian languages, it is remarkable for its complex verbal morphology, including around

Figure 1: Locations where Oneida is spoken

sixty or so bound pronominal prefixes, an intricate distribution of prepronominal prefixes that include meanings having to do with negation, locations, and quantity (to mention a few), and robust noun incorporation. Despite the proximity to the dominant English-speaking towns, Oneida has relatively few borrowings, instead using mostly conventionalized inflected verb forms as labels for new concepts. There are over 150 uninflected particles with a wide range of meanings; they can, for example, express locations, negation, quantitative and modal concepts, and link clauses in various ways.

Traditionally, Northern Iroquoian is described as having three morphological parts of speech – verbs, nouns and uninflected particles, with kinship terms more recently recognized as a fourth (see Koenig & Michelson 2010). Verbs, nouns and kinship terms are obligatorily inflected with pronominal prefixes. The semantic categories distinguished by the prefixes are person (first, second, third, plus inclusive versus exclusive), number (singular, dual, plural), and gender (masculine, feminine-zoic, feminine). The feminine-zoic singular refers to some female persons, animals, and some inanimates in motion (Abbott 1984; Michelson 2015). The feminine occurs only in the singular; all nonsingular female persons are referred to with feminine-zoic prefixes.[3] An indefinite (or unspecified) category is syncretic throughout the system with the feminine singular, and "feminine-indefinite" is the traditional label for the feminine singular plus indefinite categories.

There are three paradigmatic classes of pronominals, and their distribution is relevant for understanding the morphology of reflexive verbs as compared with corresponding non-reflexive verbs. First, there is a class of portmanteau-like prefixes that occur with verbs that have two semantic arguments that are both animate (which includes most kinship terms). For example, the verb form in (3) is inflected with the prefix that references a first person singular proto-agent and a third person masculine singular proto-patient (the terms proto-agent and proto-patient are adopted from (Dowty 1991) for semantic roles not confined to canonical agent and patient). The verb forms in (1a) and (2a) in the introduction also have prefixes that reference two animate arguments. The other two classes of pronominals, Agent and Patient, occur with verbs that have only one animate semantic argument. Verbs with Agent pronominals are exemplified in (4) and (5). The verb *-ye-* 'wake up' in (4) has one animate semantic argument, third person masculine singular, and it is inflected with the Agent prefix *ha-*. The verb

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[3]The label "neuter" sometimes is used in place of feminine-zoic for some of the languages related to Oneida, such as Cayuga and Seneca which no longer distinguish reference to single female "zoic" persons from inanimates.

-ket- 'scrape, grate' in (5) has two semantic arguments but only one animate argument, third person masculine singular; the Agent prefix *ha-* references this animate argument, and the inanimate argument is not referenced. When a verb has no animate arguments, the verb is inflected with the feminine-zoic singular prefix, since every verb must have a pronominal prefix. Often, the selection of Agent versus Patient paradigm may be evident from the meaning of the verb, but in many cases the semantic motivation has become obscured and the selection of Agent/Patient prefixes is considered by all Iroquoian scholars to be lexically determined by the verb. (See Koenig & Michelson 2015 for a detailed discussion about the realization of arguments in Oneida and the distribution of pronominal prefixes, including arguments for the feminine-zoic singular prefix as the default prefix.)

(3) *wahihle·wáhteʔ*
     wa-**hi**-hlewaht-eʔ
     FACT-1SG>3M.SG-punish-PNC
     'I punished him' (Michelson & Doxtator 2002: 375)

(4) Monadic verb with one animate argument: Agent prefix
     waha·yé·
     wa-**ha**-ye-ʔ
     FACT-3M.SG.A-wake.up-PNC
     'he woke up' (Michelson & Doxtator 2002: 806)

(5) Dyadic verb with one animate argument: Agent prefix
     waha·kéteʔ
     wa-**ha**-ket-eʔ
     FACT-3M.SG.A-scrape,grate-PNC
     'he scraped it, he grated it' (Michelson & Doxtator 2002: 470)

Reflexive and semi-reflexive prefixes occur between the pronominal prefix and the verb root. The verbs *-nuhlyaʔk-* 'hurt' in (6) and *-ahseht-* 'hide' in (8) have two distinct animate arguments and bear prefixes referencing both arguments – the same arguments as the verb form in (3). The form in (7), with the reflexive *-atat-*, is inflected with the first person singular Agent prefix referencing the single distinct animate argument. Likewise, the verb forms in (9–10), the latter with the semi-reflexive, have only one animate argument and both are inflected with an Agent prefix.[4]

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[4]Verbs with the reflexive prefix always occur with the Agent paradigm of pronominal prefixes. Verbs with the semi-reflexive can select the Patient paradigm. Some verbs, such as *-ahseht-* 'hide' in (8–10), require the incorporated root *-yaʔt-* 'body' when the affected argument is animate, as is the case in (8); see (Michelson & Doxtator 2002).

(6) Verb with two distinct animate arguments
     wahinú·lyahkeʔ
     wa-**hi**-nuhlyaʔk-eʔ
     ꜰᴀᴄᴛ-1ꜱɢ>3ᴍ.ꜱɢ-hurt-ᴘɴᴄ
     'I hurt him' (Michelson & Doxtator 2002: 602)

(7) Reflexive verb with one distinct animate argument: Agent prefix
     wahatatnú·lyahkeʔ
     wa-**k-atat**-nuhlyaʔk-eʔ
     ꜰᴀᴄᴛ-1ꜱɢ.ᴀ-**ʀᴇꜰʟ**-hurt-ᴘɴᴄ
     'I hurt myself' (Michelson & Doxtator 2002: 143)

(8) Verb with two distinct animate arguments
     wahiyaʔtáhsehteʔ
     wa-**hi**-yaʔt-ahseht-eʔ
     ꜰᴀᴄᴛ-1ꜱɢ>3ᴍ.ꜱɢ-body-hide-ᴘɴᴄ
     'I hid him' (Michelson & Doxtator 2002: 69)

(9) Verb with one animate argument: Agent prefix
     waʔkáhsehteʔ
     waʔ-**k**-ahseht-eʔ
     ꜰᴀᴄᴛ-1ꜱɢ.ᴀ-hide-ᴘɴᴄ
     'I hid it' (Michelson & Doxtator 2002: 69)

(10) Semi-reflexive verb with one distinct animate argument: Agent prefix
     waʔkatáhsehteʔ
     waʔ-**k-at**-ahseht-eʔ
     ꜰᴀᴄᴛ-1ꜱɢ.ᴀ-ꜱᴇᴍɪʀᴇꜰʟ-hide-ᴘɴᴄ
     'I hid' (Michelson & Doxtator 2002: 129)

Oneida does have free-standing pronouns, but they are used only for emphasis and contrast. First and second person pronouns are uninflected particles, i.e. have a constant form: *í·* for first person, and *isé·* for second person. Third person forms are based on a stem *-ulhaʔ*, inflected with the appropriate pronominal prefixes (from the Patient paradigm). This stem is often glossed 'self' in work on Iroquoian, but it is an intensifier and its function does not include coindexing. The excerpts in (11–12) are examples of how it is used.

(11) Intensifier *-ulhaʔ*
      Kwáh akwekú lonulhá·   lotiyʌ́thu.
      Kwáh akwekú **lon-ulhaʔ** loti-yʌtho-u
      quite all   3M.PL.P-**self** 3M.PL.P-plant-STV
      'They grew everything themselves.' (Verland Cornelius, *A Lifetime of Memories*, 320 (88))

(12) *nʌ   akaulhá· sʌ́· oskanʌ́ha waʔenhotu·kó·,*
      nʌ   **aka-ulhaʔ** sʌ́· oskanʌ́ha waʔ-ye-nhotukw-ʔ
      then 3FI.P-**self** also quietly   FACT-3FI.A-open.a.door-PNC
      'then she herself also quietly opened the door,' (Norma Kennedy, *The Girl With the Bandaged Fingers*, 82 (31))

The next two sections give more detail about the distribution and functions of the reflexive and semi-reflexive prefixes.

3 Reflexive prefix

The reflexive prefix *-atat-/-atate-* functions to identify an instigator of an event as identical with the affected participant, i.e. coindexes a proto-agent and proto-patient participant. Some verbs that are attested with the reflexive are listed in (13). The distribution of *-atat-* and *-atate-* is phonological: *-atate-* occurs when the prefixation of *-atat-* to the verb stem would result in a non-occurring consonant cluster.

(13) Verbs with the reflexive prefix[5]
      a. *-aweʔest-* 'prick, pierce, sting', *-atataweʔest-* 'prick oneself'
      b. *-hlen-* 'cut into, incise', *-atathlen-* 'cut oneself'
      c. *-hloli-* 'talk about someone', *-atathloli-* 'talk about oneself'
      d. *-itʌl-* 'pity someone', *-atatitʌl-* 'feel sorry for oneself'
      e. *-kaly-* 'bite someone', *-atatkaly-* 'bite oneself'
      f. *-kuʔtslihal-* 'weigh something', *-atatkuʔtslihal-* 'weigh oneself'
      g. *-lyo-/-liyo-* 'kill', *-atatliyo-* 'kill oneself'

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[5]Some of these are internally complex; the composition of complex stems is given in Michelson & Doxtator (2002) as part of the entry for the stem. Also, stems in Oneida may require a particular prepronominal prefix; for reasons of space, throughout this paper, stems are listed without these prefixes but again this information can be retrieved by consulting Michelson & Doxtator (2002).

h. *-nutu-* 'put something into someone's mouth', *-atatnutu-* 'feed oneself'

i. *-shnye* 'look after someone, nurture', *-atateshnye-* 'look after oneself'

j. *-stelist-* 'laugh at someone', *-atatestelist-* 'laugh at oneself'

k. *-wyʌnataʔ-* 'get something ready', *-atatewyʌnataʔ-* 'get oneself ready'

l. *-yaʔtakenha-* 'help someone out', *-atatyaʔtakenha-* 'help oneself'

m. *-ʔnikuhloli-* 'entertain someone', *-atateʔnikuhloli-* 'entertain, amuse oneself'

n. *-ʔnutanhak-* 'blame someone', *-atateʔnutanhak-* 'blame oneself'

o. *-ʔskuthu-* 'burn someone', *-atateʔskuthu-* 'burn oneself'

An additional use of the reflexive prefix is with kinship terms. The reflexive can occur with a few kinship terms to indicate a dyadic relation; an example is *-atatyʌha* 'parent and child' in the excerpt in (14a). The effect of the reflexive with kinship terms is to express a reciprocal relation. Otherwise reciprocals normally require the dualic prepronominal prefix, as discussed later on in this section. Without the reflexive, the kinship term refers to one of the members only, as in (14b).

(14) The reflexive with kinship terms

a. *yotinuhsóta*   *kaʔikʌ́ onatatyʌ́ha,*
yoti-nuhsota   kaʔikʌ́ on-**atat**-yʌha
3FZ.PL.P-have.a.home.together this   3FZ.PL.P-REFL-parent:child
tahnú·nʌ   yaʔkáheweʔ a·kyatekhu·ní·,
tahnú·nʌ   yaʔkáheweʔ aa-ky-atekhuni-ʔ
and   then it came time OPT-3FZ.DU.A-eat-PNC
'(once upon a time) this mother and daughter had a home together, and when it came time for the two of them to eat,' (Norma Kennedy, *The Bird* 50 (3))

b. *Né· kwí· né· n liyʌ́ha...*   *wahaya·kʌ́neʔ,*
Né· kwí· né· n li-yʌha   wa-ha-yakʌʔ-ne?
ASSERTION   1SG>3M.SG-parent:child FACT-3M.SG.A-exit-PNC
yahaʔslo·tʌ́·;
y-a-h-aʔsl-ot-ʌʔ
TRANSLOC-FACT-3M.SG.A-axe-stand-PNC
'So my son, (if it seems like the weather is going to get real bad...) he goes out, he plants an axe in the ground;' (Mercy Doxtator, *How to Divert a Storm*, 198–199 (4))

The reflexive can encode some additional meaning. For example, with certain one-place predicates that describe a physical attribute or kind of personality, the reflexive adds a component of meaning that may be rendered into English as 'think oneself so' or 'act so', as in (15a). With some verbs the reflexive adds a component that suggests effort, as with the verb 'apply oneself' in (15b). Other verbs that cannot be derived compositionally from the meaning of the non-reflexive verb are 'hire oneself out' in (15c) and 'turn oneself into (another being)' in (15d).

(15) Reflexive verbs with some additional meaning

a. *Shayá·tat*   *kaʔikʌ́ kʌʔ nithoyʌ́ha, yah kwí·   teʔwé·ni*
    shayá·tat   kaʔikʌ́ kʌʔ nithoyʌ́ha yah kwí·   teʔwé·ni
    he is one person this   young guy   not really it's incredible
    nihatatnikʌ́htele͟ʔ.
    ni-h-**atat**-nikʌhtle-ʔ
    PART-3M.SG.A-REFL-be.handsome-STV
    'This one young fellow, he thought he was so handsome.' (Georgina Nicholas, *The Flirt*, 32 (4))

b. *tsiʔ   a·hutataskénhaʔ,*   *a·hotiyo·tʌ́·,*
    tsiʔ   aa-hu-**atat**-askenha-ʔ   aa-hoti-yotʌ-ʔ
    COMP OPT-3M.PL.A-REFL-fight.over-PNC OPT-3M.PL.P-work-PNC
    ta·huthwatsiláshnyeʔ,
    t-aa-hu-at-hwatsil-a-shnye-ʔ
    DLC-OPT-3M.PL.A-SEMIREFL-family-JOIN-look.after-STV
    '(they told them) that they should apply themselves, they should work, they should look after their families,' (Pearl Cornelius, *Family and Friends*, 180 (13))

c. *nʌ kiʔ ok aleʔ wí· wahutaténhaneʔ,*   *kátshaʔ ok nú·*
    nʌ kiʔ ok aleʔ wí· wa-hu-**atate**-nhaʔ-ne?   kátshaʔ ok nú·
    then again   FACT-3M.PL.A-REFL-hire-PNC somewhere
    tahuwatínhaneʔ,
    t-a-huwati-nhaʔ-ne?
    CISLOC-FACT-3>3M.PL-hire-PNC
    'and then again they would hire themselves out, someone would hire them somewhere,' (Mercy Doxtator, *All About Tobacco*, 246 (4))

d. *Aulhá· né·   thikʌ́ kóskos yotatunihátyehseʔ*
    aulhá· né·   thikʌ́ kóskos yo-**atat**-uni-hatye-hseʔ
    herself ASSERTION that   pig   3FZ.SG.P-REFL-make-PROG-HAB
    'And it was her that would turn herself into a pig' (Verland Cornelius, *A Witch Story*, unpublished (11))

Finally, reciprocal meaning is expressed with the reflexive plus a prepronominal prefix with diverse functions, the dualic (duplicative) prefix *te-*. (The basic meaning of the dualic/duplicative is usually described as involving 'twoness', but its functions are quite diverse; see, for example, Lounsbury 1953.) Just like reflexive verbs, verbs that have the reciprocal structure occur with the Agent paradigm of pronominal prefixes. This is shown in the excerpt in (16), which includes two instances of the verb *-nʌskw-* 'steal (from)'. The last verb form in (16), without the reflexive, bears the prefix *hak-*, referencing two animate arguments, third person masculine singular and first person singular. The first verb form in (16) is a reciprocal with both reflexive and dualic prefixes; it is inflected with the first person exclusive dual Agent prefix *yaky-*.

(16)   Reciprocal verb with the reflexive and dualic prefixes
       teyakyatatnʌ́skwas,...   ókhaleʔ tho   tehahyakwilotátiʔ
       te-yaky-atat-nʌskw-as   ókhaleʔ tho   tehahyakwilotátiʔ
       DLC-1EXCL.PL.A-REFL-steal-HAB and   there he is coming on his tiptoes
       wahakkʌhanʌsko͟ʔ.
       wa-**hak**-kʌh-a-nʌskw-ʔ
       FACT-3M.SG>1SG-blanket-JOIN-steal-HAB
       'we would steal [the blanket] from each other,... he'd come tiptoeing and
       steal the blanket from me.' (Pearl Cornelius, *Family and Friends*, 307 (93))

Many verbs can express both reflexive and reciprocal meaning (for example *-atatyaʔtakenha-* 'help oneself' and *te- ... -atatyaʔtakenha-* 'help each other') but some verbs can express only reciprocal meaning (for example *-atatnʌskw-* 'steal from one another', *-atatlʌʔnha-* 'get to know one another, become acquainted', and *-atatkahnle-* 'look at one another').[6]

4 Semi-reflexive prefix

The semi-reflexive prefix *-at-/-ate-/-atʌ-/-an-/-al-/-a-* occurs widely in Oneida (the different forms are discussed at the end of this section). The semi-reflexive has a number of functions including use with verbs of grooming, deriving anti-causative verbs, and deriving verbs that involve change of position and manner of self-propulsion. These are meanings that are expressed in some languages by the middle voice. But the semi-reflexive can also change the semantic role of one

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[6]There is a reflexive verb 'see oneself', *-atatkʌ-*, but it is based on a different verb, *-kʌ-* 'see'.

of the arguments of the verb, and often the result of affixing the semi-reflexive is at least partially unpredictable. These functions are discussed in turn below.

The semi-reflexive is found with most verbs of grooming and body care, including those whose meaning involves the whole body and those that target just a part of it. Many of these verbs have an incorporated noun that denotes the affected body part. The verb form in (17a) involves adornment of the whole body while the one in (17b) is directed just at teeth. Additional grooming verbs are listed in (18).

(17) Semi-reflexive with grooming verbs

    a. *yakotyaʔtahsluní*
       yako-**at**-yaʔt-a-hsluni
       3FI.P-SEMIREFL-body-JOIN-dress,prepare[STV]
       'she is all dressed up' (Michelson & Doxtator 2002: 298)

    b. *yutnawilóhaleheʔ*
       yu-**at**-nawil-ohale-heʔ
       3FI.A-SEMIREFL-tooth-wash-HAB
       'she is brushing her teeth' (Michelson & Doxtator 2002: 921)

(18) Grooming verbs

    a. *-atewyʌʔt-* 'fix, put away, take care of', *-atatewyʌʔt-* 'make oneself presentable'

    b. *-hsluni-* 'dress someone', *-atsluni-* 'get dressed'

    c. *-kustuʔlhyaʔk-* 'cut a beard, shave someone', *-atkustuʔlhyaʔk-* 'shave oneself'

    d. *-nathalho-* 'comb someone's hair', *-atnathalho-* 'comb one's (own) hair'

    e. *-wisklalho-* 'smear with white', *-atwisklalho-* 'put face powder on'

The semi-reflexive derives anticausatives; some derived anticausative verbs are listed in (19). The verbs in (20) represent a sizeable cohort of derived stems with both the semi-reflexive prefix and an overt causative suffix *-t-/-ht-/-ʔt-/-st-*. However, with these stems, a canonical causative meaning cannot always be discerned, and furthermore the result of affixing the semi-reflexive can be unpredictable. In other words, while the verbs in (19) are relatively transparent anticausatives, the verbs in (20) are less so.

(19)   Semi-reflexive derives anticausative verbs

    a.   *-hyoʔkt-* 'dull something, make dull', *-athyoʔkt-* 'become dull'

    b.   *-kaʔtshyu-* 'undo', *-atkaʔtshyu-* 'come undone'

    c.   *-khahsyu-* 'separate, divide, share', *-atekhahsyu-* 'come apart, separate'

    d.   *-hwanhak-* 'tie up', *-athwanhak-* 'get tied up'

    e.   *-lanyu-* 'rub something', *-atlanyu-* 'rub against'

    f.   *-laʔnekalu-* 'burst something', *-atlaʔnekalu-* 'burst'

    g.   *-laʔnʌtahsyu-* 'peel something', *-atlaʔnʌtahsyu-* 'peel off'

    h.   *-tenihʌ-* 'shake something', *-attenihʌ-* 'flap'

(20)   Anticausative verbs with a causative suffix and semi-reflexive prefix

    a.   *-ahkatste-* 'be tough, endure', *-atahkatstat-* 'toughen up, make oneself tough'

    b.   *-anowʌ-* 'be a liar', *-atanowʌht-* 'doubt, not believe'

    c.   *-ksaʔtaksʌ-* 'be a bad child', *-ateksaʔtaksaʔt-* 'misbehave'

    d.   *-lakal(ehl)-* 'for a noise to sound', *-atlakalehlast-* 'make noise'

    e.   *-lhale-* 'be ready, expecting', *-atelhalat-* 'get (oneself) ready'

    f.   *-shnole-* 'be fast', *-ateshnolat-* 'go fast, do quickly'

    g.   *-shw-* 'smell, get a whiff of', *-ateshwaht-* 'smell something'

    h.   *-ʔniskw-* 'be late', *-atʌʔniskwaht-* 'do late, slowly, behind schedule'

The semi-reflexive verbs in (21–22) describe a change in posture or orientation, or have to do with motion in a particular manner. The verbs in (22) are derived from stative verbs.

(21)   Semi-reflexive derives verbs with a change in orientation or manner of motion

    a.   *-awʌhlat-* 'put something over something', *-atawʌhlat-* 'spill over, go over'

    b.   *-awʌlye-* 'stir something', *-atawʌlye-* 'wander, stroll'

    c.   *-kalhateny-* 'turn something over', *-atkalhateny-* 'turn around',

    d.   *-kalhatho-* 'turn or knock over, plow', *-atkalhatho-* 'turn or roll over'

    e.   *-ketskw-* 'right something', *-atketskw-* 'right oneself, sit up'

    f.   *-kwiʔt-* 'move something', *-atkwiʔt-* 'move over'

    g.   *-ukoht-* 'penetrate, force through', *-atukoht-* 'pass by, continue on'

    h.   *-ʔsle-/-iʔsle-* 'drag something', *-ateʔsle-* 'crawl'

(22)   Semi-reflexive verbs derived from stative verbs

    a.   *-haʔkwawelu-* 'have one's head back with throat exposed',
        -athaʔkwawelu- 'put one's head back'

    b.   *-nʌtshotalho-* 'have one's arm hooked through something,
        -atnʌtshotalho- 'hook one's arm (through someone else's)'

    c.   *-utshot-* 'be kneeling', -atutshot- 'kneel down'

    d.   *-ʔnoyot-* 'be stooped', -ateʔnoyot- 'stoop over (something)'

With a significant number of verbs, the semi-reflexive changes the participant role of one of the arguments of the verb in an unpredictable way, or it just derives a verb with a different and unpredictable meaning. Examples are listed in (23).

(23)   The semi-reflexive derives a verb with unpredictable meaning

    a.   *-ahlist-* 'forbid someone', *-atahlist-* 'put a stop to'

    b.   *-hloli-* 'tell someone something', *-athloli-* 'talk about someone or
        something'

    c.   *-hninu-* 'buy', *-atʌhninu-* 'sell'

    d.   *-itʌht-* 'be poor', *-anitʌht-* 'plead'

    e.   *-khuni-* 'prepare food, cook', *-atekhuni-* 'eat a meal'

    f.   *-kweny-* 'beat at, best someone', *-atkweny-* 'win'

    g.   *-liyo-/-lyo-* 'beat, kill', *-atliyo-* 'fight'

    h.   *-niha-* 'lend', *-atʌhniha-* 'borrow'

    i.   *-oʔkt-* 'come to the end of, finish, end', *-atoʔkt-* 'run out of'

    j.   *-nyeht-* 'send something with someone', *-atʌnyeht-* 'send someone
        something'

    k.   *-olishʌ-* 'be out of breath, pant', *-atolishʌ-* 'rest'

    l.   *-tsyʌʔt-* 'cure someone', *-atetsyʌʔt-* 'treat someone'

    m.   *-nhaʔ-* 'hire someone, get someone to do something', *-atʌnhaʔ-* 'hire
        labour'

    n.   *-ʔtshaʔ-* 'get beaten, stumped', *-atʌʔtshaʔ-* 'earn'

The semi-reflexive has been described by Lounsbury (1953: 74) for Oneida, Woodbury (2018: 237–243) for Onondaga, and Chafe (2015: 55–58) for Seneca. There is an additional function mentioned in these sources that is relevant here, which is to indicate ownership. An example with an English translation that suggests that an entity, in this case 'shoes', belongs to the proto-agent is (24). The

last verb form in (15b) above, 'look after one's family', also suggests a kind of ownership.

(24)   Semi-reflexive and ownership
       waʔtkaláhtaneʔ
       waʔ-t-k-**al**-ahtaʔ-neʔ
       FACT-DLC-1SG.A-SEMIREFL-put.on.shoes-PNC
       'I put on my shoes' (Michelson & Doxtator 2002: 97)

However, possession is not entailed. Often, pragmatically it makes sense to think of the object as belonging to the instigator, but (outside of body parts of course) the entity can belong to someone else, or to no one. The semi-reflexive verb just indicates some sort of physical or perceived proximity. In fact, for many verbs, it would be odd to think of the entity as being owned. The verb form in (25) was used in the context of the narrator's grandmother making baskets, which she sold or traded for goods. The same verb (*-uni-* 'make') occurs in (26), with the affected entity expressed externally rather than by an incorporated noun. Here the narrator is talking about her grandmother making her own butter and cheese. In these contexts, it makes little sense to talk of belongings; rather the sense is making baskets herself for her own purpose; or butter and cheese herself, for her and the family's use.

(25)   *Né· s kwí·   yakolʌʔnhá·u   a·yutaʔahslu·ní·*
       né· s kwí·   yakolʌʔnhá·u   aa-yu-**at**-aʔahsl-uni-ʔ
       ASSERTION she knows how OPT-3FI.A-SEMIREFL-basket-make-PNC
       'She really knew how to make baskets.' (Georgina Nicholas, *An Oneida Childhood*, 207 (62))

(26)   *né· s kwí· né· owistóhsliʔ waʔutu·ní·   kháleʔ cheese,*
       né· s kwí· né· owistóhsliʔ waʔ-yu-**at**-uni-ʔ   kháleʔ cheese
       ASSERTION   butter   FACT-3FI.A-SEMIREFL-make-PNC and   cheese
       cottage cheese.
       cottage cheese
       cottage cheese
       'she made butter, and cheese, cottage cheese.' (Verland Cornelius, *A Lifetime of Memories*, 318 (67))

This section ends with a brief description of the distribution of the different forms of the semi-reflexive, *-at-/-ate-/-atʌ-/-an-/-al-/-a-*, and the overlap with the forms of the reflexive, *-atat-/-atate-*. As already mentioned, the reflexive is

-atate- when adding *-atat-* to the stem would result in a sequence of consonants that is not permitted in Oneida. Similarly, the semi-reflexive form *-ate-* occurs if otherwise a non-occurring cluster would result. If there were no other semi-reflexive realizations, the reflexive would simply constitute a sequence of two semi-reflexives. However, the semi-reflexive does have additional forms, and the distribution of the forms is only partly phonological: *-atʌ-* (mainly before stems that begin in *n* or *hn*), *-al-* (before lexically-specified roots that begin in the vowel *a*), *-an-* (before lexically-specified roots that begin in the vowel *i*), and *-a-* (before a few lexically-specified roots beginning in *n* or *ʔn*). The same stem can occur predictably with the *-atat-* or *-atate-* reflexive but select a semi-reflexive form that is not *-at-* or *-ate-*. For example, the verb *-hninu-* 'buy (from)' occurs with the semi-reflexive *-atʌ-* in *-atʌhninu-* 'sell', listed in (23) above, but with the reflexive *-atat-* (see 27 below). Another example is *-nhaʔ-* 'hire someone', *-atʌnhaʔ-* 'hire labour' with the semi-reflexive *-atʌ-* in (23), and *-atatenhaʔ-* 'hire oneself out' with the reflexive *-atate-* in (15c).

5 Semantic roles

This section is a discussion of pairs of participant roles other than canonical proto-agent and proto-patient that can be coindexed in Oneida, as well as some participant roles that require or allow a reflexive structure in some languages but do not involve the (semi-) reflexive prefixes in Oneida.

A relatively productive suffix in Oneida is the benefactive-applicative, and stems with this suffix can be prefixed with the reflexive to derive stems with arguments that are coindexed, as in the excerpt in (27). Other benefactive verbs are *-atatlihunyʌni-* 'teach oneself' (literally, make the matter for oneself) and *-atatyoʔtʌhse-* 'work for oneself'. (There are several forms of the benefactive suffix, some phonologically unrelated; for example *-ʌni-* and *-hs(e)-*.)

(27)   Reflexive with the benefactive
    né· tsiʔ í·   *akhwístaʔ*   *wá·katsteʔ*
    né· tsiʔ í·   ak-hwist-aʔ   waʔ-k-atst-eʔ
    because FIRST PERSON 1SG.POSS-money-NSF FACT-1SG.A-use-PNC
    waʔkatathninúnyuhseʔ   *tsyoʔk nahté·shuʔ,*
    waʔ-k-**atat**-hninu-nyu-hs-eʔ   tsyoʔk nahté·shuʔ
    FACT-1SG.A-REFL-buy-DISTR-BEN-PNC all kinds of things
    'because I used my money to buy all these things for myself,' (Norma Kennedy, *My First Job in Tobacco*, 274 (66))

Interestingly while verbs whose meaning includes a benefactive argument are quite productive with the reflexive, verbs whose meaning includes a recipient seem to be unattested. For example, in Oneida, one cannot give or send something to oneself; but one can give things to one another, as with the reciprocal of the verb *-awi-/-u-* 'give' in (28a). For 'talk to oneself' a speaker provided the circumlocution in (28b). Here, a form of the emphatic pronoun *-ulhaʔ* (see additional examples in 11–12) meaning 'I am all alone' is followed by a verb that asserts I am talking; indeed this is perhaps a more careful interpretation of what it means to say 'talk to oneself', namely, 'there I am all alone, and *still* (nevertheless) I am talking'.

(28)   a.   Reciprocal verb (but no corresponding reflexive)
          Thoʔnʌ́   ʌhsí·luʔ,   ʻtsyoní·tuʔ
          thoʔnʌ́   ʌ-hs-ihlu-ʔ   ʻtsyoní·tuʔ
          and then FUT-2SG.A-say-PNC beaver
          tetyatatnawi·lú·.
          te-ty-**atat**-nawil-u-ʔ
          DLC-1INCL.DU.A-REFL-tooth-give-PNC
          'And then you will say, "beaver let's trade teeth!"' (Mercy Doxtator, *Beaver, Let's Trade Teeth!*, 197 (10))

     b.   *Akulhaʔtsí·waʔ   tho wakéthaleʔ.*
          ak-ulhaʔ-tsí·waʔ   tho wake-thal-eʔ
          1SG.POSS-self-intensely there 1SG.P-talk,converse-STV
          'I am all alone (and) still I am talking.' (Spoken by Olive Elm, 12-17-2019)

There are no special reflexive forms used for possession. Alienably-possessed entities in Oneida can be inflected with possessive prefixes (related to the Patient series of verbal pronominal prefixes) that identify the person, number and gender of the possessor; inalienably-possessed entities take Agent prefixes (Koenig & Michelson 2019, 2020 are detailed discussions of possession in Oneida). The excerpts in (29a) and (29b) both have the alienably-possessed form *laohwístaʔ* 'his money' with the third person masculine singular possessive prefix *lao-*. These excerpts come from a report about a man who regularly left his money with the owner of the local store. When the man died, his son asked the store owner for the old man's money, but the store owner denied having the money. In (29a) the possessor is coindexed with the masculine singular argument of the verb *-atye-* 'throw', but in (29b) the possessor is disjoint from the masculine singular argument of *-hawe-* 'hold, have'. (Out of context, without mention of an overt

possessor, the usual interpretation is that the possessor is coreferential with the coargument of the verb.)

(29) a. Possession

    Tho   *s*   *yakʌʔ*   *nú·*   *yehótyehseʔ*

    tho   s   yakʌʔ   nú·   ye-ho-atye-hseʔ

    that's habitually reportedly where TRANSLOC-3M.SG.P-throw-HAB

    laohwístaʔ,   *la·té· latewyʌ́·tuhe̲ʔ.*

    lao-hwist-aʔ   la·té· latewyʌ́·tuheʔ

    3M.SG.POSS-money-NSF he   said

    'That's where he$_i$ left his$_i$ money, he$_i$ said he$_i$ was saving it.' (Olive Elm, *The Dreamer*, 170 (58))

   b. *tsiʔ*   *lonúhteʔ*   *kʌʔ*   *láhaweʔ*

    tsi   lo-anuhte-ʔ   kʌʔ   la-haw-eʔ

    COMP 3M.SG.P-know-STV right there 3M.SG.A-hold,have-STV

    laohwístaʔ   *kʌ́·,*

    lao-hwist-aʔ   kʌ́·

    3M.SG.POSS-money-NSF y'know

    'because he$_i$ knew he$_j$ was holding his$_i$ money right there,' (Olive Elm, *The Dreamer*, 171 (64))

English-like constructions involving coreference with oblique arguments or coreference with a non-subject (patient) do not occur in Oneida. Equivalents of these English-like constructions are expressed differently in Oneida. The excerpt in (30) includes a typical locative structure. There are no adpositions in Oneida and the equivalent phrases require a particle specifying a location (*ohnaʔkʌ́·shuʔ* 'along behind') and the orientation or movement of the located entity (in this case, someone – an unknown and frightening being – is coming along). The excerpt in (31) is given here as an example of a typical multi-clausal structure that is used where in English there is coindexing of a non-subject (e.g. 'they would talk to them about themselves'). Instead of a prepositional phrase ('about themselves') Oneida requires a clause; in this case 'what their life (or lifestyle) should be like'.

(30) Locative clause

    Né·n   *lothu·té·*   *thikʌ́ tsiʔ*   *úhkaʔ ok ohnaʔkʌ́·shuʔ*

    Né·n   lo-athute-ʔ   thikʌ́ tsiʔ   úhkaʔ ok **ohnaʔkʌ́·shuʔ**

    ASSERTION 3M.SG.P-hear-STV that   COMP someone along behind

ta·yʌ́·,
t-a-yʌ-e-ʔ
CISLOC-FACT-3FI.A-come,go-PNC

'And so he heard someone coming along behind (him),' (Norma Kennedy, *My Father's Encounter*, 74 (11))

(31)   Coindexing across clauses
washakotihlo·lí·   *tsiʔ*   *na·hotiliho?tʌ́hakeʔ*
wa-shakoti-hloli-ʔ   tsiʔ   n-aa-hoti-lihw-oʔtʌ-hak-eʔ
FACT-3>3M.PL-tell-PNC COMP PART-OPT-3M.PL.P-matter-kind.of-CONT-PNC

nʌ   *wahotínyakeʔ,*
nʌ   wa-hoti-nyak-eʔ
when FACT-3M.PL.P-marry-PNC

'they would tell them what their life should be like when they got married,' (Hazel Cornelius, *Starting Life Together*, 180 (10))

6   Conclusions

Two verbal prefixes in Oneida, the reflexive and the semi-reflexive, function to coindex arguments of the verb. The basic function of the reflexive is to coindex a proto-agent and proto-patient; the dualic prepronominal prefix adds reciprocal meaning. The semi-reflexive is used for verbs of grooming and body care; it also derives anticausatives and meanings expressed by the middle voice in other languages. Both the reflexive and semi-reflexive derive verbs with meanings that cannot be determined simply from combining a coindexing function of the prefixes with the meaning of the verb to which the prefixes are added, and this is especially true of the semi-reflexive. This unpredictability is not surprising for a morphological formation.

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Abbreviations

This chapter follows the Leipzig Glossing Rules (Comrie et al. 2008). Additional abbreviations used are:

CISLOC	cislocative		JOIN	joiner vowel
COMP	complementizer		NSF	noun suffix
CONT	continuative		PART	partitive
DLC	dualic		PNC	punctual aspect
FACT	factual mode		POSS	possessive
FI	feminine-indefinite		SEMIREFL	semi-reflexive
FUT	future mode		SG	singular
FZ	feminine-zoic		STV	stative aspect
HAB	habitual aspect		TRANSLOC	translocative

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