PRONOUNS AND AGREEMENT: THE INFORMATION STATUS OF PRONOMINAL AFFIXES

By Marianne Mithun
University of California, Santa Barbara

ABSTRACT

Pronominal affixes are often assumed to represent an intermediate stage of diachronic development between independent pronouns like English he and redundant inflectional markers like English -s. The path of development would involve changes in distribution, form and function. Recently it has been proposed that pronominal affixes are functionally closer to the redundant subject agreement markers of English and German than to independent pronouns, because they cannot distinguish referentiality or definiteness. An examination of the use of pronominal affixes in connected speech in two unrelated polysynthetic languages, Central Alaskan Yup'ik Eskimo and Navajo, indicates that the affixes are actually essentially equivalent in referentiality and definiteness to the independent pronouns of English and German. Reference and definiteness are established in Yup'ik and Navajo in the same ways as in English and other languages, plus one more. Alternative constructions are used for non-referential mentions. In some cases, these systems actually show finer distinctions of referentiality and definiteness than those of English and other European languages.

1 I would like to thank Greville Corbett, Nick Evans, Bernard Comrie and other participants at the Agreement Workshop, held in conjunction with the the autumn 2002 meeting of the Linguistics Association of Great Britain, for their helpful comments and discussion. I am especially grateful as well to the speakers who generously contributed their time and expertise in documenting their languages: Elizabeth Ali, Elena Charles, George Charles and John Charles for Central Alaskan Yup'ik and Dolly Ida Soule for Navajo. Consultation with the Surrey Morphology Group and participation in the Agreement Workshop were made possible by funding from the ESRC: ESRC (UK) R000238228. This support is gratefully acknowledged.

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1. INTRODUCTION

A frequently cited type of grammatical change is the evolution of independent anaphoric pronouns into pronominal clitics or affixes, and then into redundant verbal inflectional endings. These diachronic stages are reflected synchronically in the kinds of markers that occur cross-linguistically, as below.

(1) Independent anaphoric pronouns: German and English

Er beobachtet. Er beobachtet sie.
He watches. He watches them.

(2) Pronominal suffixes: Central Alaskan Yup’ik

Nayurtu-q. Nayura-bi.
watch-3.sg. watch-3.sg/3.pl
‘He watches.’ ‘He watches them.’

(3) Redundant verbal inflection: German and English

Er beobachtet.
He watches.

Such markers are sometimes discussed together as agreement, but they differ in sometimes subtle and interesting ways, many discussed by Corbett (2003, this volume). The diachronic path linking them would involve changes in distribution, form and function.

Perhaps the easiest difference to see among them is distributional. Independent pronouns occur in complementary distribution with lexical nominals (apart from appositive constructions). A nuclear clause in English or German may contain a pronoun alone or a lexical nominal, but not both in the same grammatical role.

(4) Independent pronouns: German and English

a. Er beobachtet.

Mein Vater beobachtet.
Er beobachtet die Kinder.

Not: *Mein Vater er beobachtet.
*Er beobachtet sie die Kinder.
(4) b. He watches.
   My father watches
   He watches the children.
   Not: *My father he watches.
   *He watches them the children.

Pronominal affixes, by contrast, are obligatory in every clause. They may occur alone in the clause just like independent pronouns, or they may be accompanied by coreferential lexical nominals. They typically represent all core arguments.

(5) Pronominal suffixes: Central Alaskan Yup’ik
   Nayurtu-q.
   watch-3.SG.ABS
   ‘He watches.’

   Aata-ka  nayurtu-q.
   father-1.SG/G watch-3.SG.ABS
   ‘My father watches.’

   Nayura-i.
   watch-3.SG/3.PL
   ‘He watches them.’

   Cuignilnguut  nayura-i.
   botter-PL watch-3.SG/3.PL
   ‘He watches the otters.’
   Not: *Aataka nayurtu-
   *Cuignilnguut nayura-

Redundant verbal inflectional affixes are obligatory in every clause, like pronominal affixes, but they never occur on their own. They are always accompanied by an independent lexical nominal or pronoun.

(6) Redundant verbal inflection: German and English
   a. Er beobacht-et.
      Mein Vater beobacht-et.
      Not: *Beobacht-et.

   b. He watch-es.
      My father watch-es.
      Not: *Watch-es.
As discussed by Siewierska (1999), markers at the first two stages, that is, independent pronouns and pronominal affixes, are the most common cross-linguistically, but the diachronic transition from stage to stage is not necessarily abrupt, and systems at intermediate stages do occur. Siewierska notes, for example, that Palauan pronominal prefixes are in complementary distribution with independent pronouns, but they co-occur with lexical NPs.

The evolution from independent pronoun to redundant inflection involves changes in form and function as well. Formally, markers lose their phonological independence, and there is often a loss of phonological substance as well. On the functional side, it has been observed that the process ultimately results in a loss of referentiality. As Siewierska remarks, ‘The endpoint of the historical evolution of agreement markers from anaphoric person pronouns is the loss of referentiality on the part of the person marker and the obligatory presence of the nominal argument with which it agrees’ (1999: 225).

This scenario raises questions about the relative timing of the various shifts. Do they occur in sequence or do they overlap? In particular, does the loss in referentiality occur before or after the markers have become formally dependent and obligatory? Viewed synchronically, are pronominal affixes referential? In an intriguing paper, Evans (1999) proposes that argument affixes in polysynthetic languages, especially those representing direct objects, lack important criterial features of pronouns: referentiality and definiteness. He attributes the semantic difference to the obligatoriness of the affixes.

Being obligatory, they will no longer be able to encode such contrasts as referential vs non-referential, definite vs indefinite and so on. As a result, bound object affixes in at least some polysynthetic languages pattern more like subject agreement morphology in European languages than like free pronouns, in that they specify person and number information while remaining non-committal about reference and discourse status. (Evans 1999: 255)

Evans's arguments are based on material from Bininj Gun-wok, a dialect chain of northern Australia, but he maintains that they extend to other polysynthetic languages as well, citing languages
from the Eskimo-Aleut, Iroquoian, Salishan, Uto-Aztecan and South Caucasian families, among others.

In what follows, the notions of referentiality and definiteness will first be examined more closely, then the functions of pronominal affixes will be investigated in two unrelated polysynthetic languages: Central Alaskan Yup'ik, an Eskimo-Aleut language of southwestern Alaska, and Navajo, an Athabaskan language of the American Southwest. It will be seen that the pronominal affixes in both of these languages are referential and definite in all but one of their uses, a use typical of the independent pronouns of German and English as well. Non-referential mentions are generally made with alternative constructions.

Terms used for the markers at various stages along the diachronic path vary considerably. As discussed by Siewierska (1999) and others, the hypothesised diachronic evolution results in a cline that does not lend itself to easy segmentation, so authors differ in the number of types of marker they distinguish and the terms they use for each. Some refer to all markers along the cline as 'agreement markers'; others use that term only for pronominal affixes and redundant inflection; still others use it only for redundant inflection. The schema adopted here is the tripartite division proposed by Siewierska and implicit in the work of Evans. Following Siewierska and Evans, markers at the three stages will be referred to as (i) independent pronouns, (ii) pronominal affixes and (iii) redundant grammatical agreement markers.

2. REFERENTIALITY AND DEFINITENESS

The notion of reference is rarely given a succinct definition in the literature on semantics. The concept tends instead to be introduced by example. Lyons (1977: 174) states that 'the term “reference” has to do with the relationship which holds between an expression and what that expression stands for on particular occasions of its utterance'. He provides the illustration below.

When a sentence like ‘Napoleon is a Corsican’ is uttered to make a statement, we will say that the speaker refers to a certain individual (Napoleon) by means of the referring
expression. If the reference is successful, the referring expression will correctly identify for the hearer the individual in question: the referent. (Lyons 1977: 177)

Chafe (1994) approaches the notion of reference through clause function. One can think of a clause as verbalising the idea of an event or state.

Each of these event or state ideas contains within it other, included ideas that can be said to be participants in the events or states. These participants are typically the ideas of people, objects, or abstractions, for which the term referents is appropriate. . . . With a few exceptions such as raining and being cold (of the weather), things do not happen and states do not exist without the inclusion of referents who perform them, are affected by them, or participate in them in other ways. . . . It is important to keep in mind, however, that in this usage events, states, and referents are all ideas that exist in the minds of speakers and listeners. Whether or not they have correlates in the “real world” is irrelevant. I can (and do) think of the feats of Scarlett O’Hara as naturally as those of Marilyn Monroe. That only one of these referents ever existed in “reality” makes no difference to my thought or speech. (Chafe 1994: 67).

Both Lyons and Chafe distinguish several kinds of referents: specific individuals (individual referents), groups of individuals (group referents) and typical instances of a class (generic referents). But not all linguistic expressions evoke the idea of a particular individual, group or class. Examples of English non-referential NPs, used when there is no referent at all, either particular or generic, include those cited by Chafe in (7).

(7) Some English non-referential NPs (Chafe 1994: 103–4)
   a. NPs that specify more fully the nature of an event
      He loves telling jokes.
   b. Indefinite pronouns
      whatever the case may be
   c. Non-specific mentions in irrealis contexts
      I think I’ll buy a newspaper.
(7) d. Negative pronouns
   No one ever went to Seattle on their way to somewhere else.

e. Content question words
   Who told you that?

f. Non-referential it
   It is raining.

The term ‘definiteness’ generally refers to the grammatical encoding of identifiability. Chafe (1994: 93) defines the property of identifiability very simply: ‘An identifiable referent is one the speaker assumes the listener will be able to identify’. Identifiable referents share three characteristics. They are: i. assumed to be already shared by the listener; ii. verbalised in a sufficiently identifying way; iii. contextually salient. By (i), an identifiable referent is assumed by the speaker to be already part of the hearer’s knowledge. This knowledge might be direct, as in I’ve fed the dog, where both speaker and listener are already familiar with the family pet. It might come from prior discourse. Or it might be derived by association, as in Chafe’s example of the horn in These gals were in a Volkswagen, and they kept honkin’ the horn. Criterion (ii) reflects the fact that a speaker is obligated to categorise a shared referent in a way that allows the listener to identify it. The linguistic resources necessary for identification vary with the situation: in some cases a pronoun alone may be sufficient, in others a demonstrative may be appropriate, and in still others a common noun, a modified noun or a proper name, may be necessary. Criterion (iii), contextual salience, ‘has to do with the degree to which a referent “stands out” from other referents that might be categorised in the same way. It may be established by the discourse, by the environment within which a conversation takes place, by the social group to which the participants in a conversation belong, or by commonness of human experience’ (Chafe 1994: 100).

Referentiality and identifiability are distinct but related. The feature of identifiability is irrelevant for two kinds of NP: those with generic referents and those with no referent at all (Chafe 1994: 101–5).

3. CENTRAL ALASKAN YUP’IK

Central Alaskan Yup’ik is a language of the Eskimo-Aleut family spoken in southwestern Alaska. Yup’ik verbs consist of an initial
root, optionally followed by one or more derivational or modifying suffixes, plus an obligatory inflectional ending. The ending contains a mood suffix that usually distinguishes transitivity, and a pronominal suffix identifying the core arguments of the clause. In the examples cited here, the first line represents the utterance in the community orthography; the second, a segmentation into morphemes; the third, morpheme-by-morpheme glossing; and the fourth, a free translation.

(8) Yup’ik verb structure

Nayuruararput

nayur-uar-ar-put

observe-without.serious.purpose-TRANSITIVE.INDICATIVE-1.PL/3.PL

‘We watched them for some time.’

The pronominal suffixes do not distinguish gender, but they do distinguish four persons (first, second, third and coreferential third), three numbers (singular, dual and plural), and two grammatical roles. (The coreferential third-person category, abbreviated r, is used for participants that are coreferential with the subject of that clause or a higher one.) There are no independent pronouns comparable to the unstressed pronouns of English or German. (Independent emphatic/contrastive forms meaning, for example, ‘I myself’ exist, but they are not equivalent to English or German unstressed pronouns. They are used only in pragmatically marked contexts.) Verbs with their pronominal suffixes can, and often do, constitute complete, grammatical sentences in themselves, as above.

3.1. Referentiality in Yup’ik

In languages with independent pronouns like English or German, the reference of the pronouns can be established in a number of ways. Similar strategies can be seen behind the use of the Yup’ik pronominal suffixes. The passage below comes from a family conversation about a hunting trip. The pronominal suffixes are underscored.
(9) Yup'ik otter anecdote (Elena Charles, speaker p.c.)

a. Ayaginar piuq,
   Ayaginar pi-u-q
   name do-INTR.INDIC-3.SG
   ‘Ayaginar said,

   tang = guq cuignilingur-t
   look! = QUOTATIVE otter-PL
   ‘Look! Otters!

c. Atak-gguq tang
   atak = gguq tang
   well.then = HEARSAY look
   What do you say

d. arulaiqarluta
   arula-ir-qar-lu-ta
   be.in.motion-NEG-briefly-SUBORDINATIVE-1.PL
   we stop briefly

e. nayurqaqurlaput.”
   nayur-qaqur-la-put
   observe-interruptedly-OPTATIVE-1.PL/3.PL
   and watch them for a while?”

f. Angerluku,
   anger-lu-ku
   answer-SUBORDINATIVE-3/3.SG
   I answered him,

g. “Kiik patagmek pisqelluku.”
   kiiki patagmek pi-sqel-lu-ku
   hurry at.once do-ask-SUBORDINATIVE-BR/3.SG
   ‘Hurry, ask him to do it!”

h. Arulaiqerluta
   arula-ir-qer-te-lu-ta
   be.in.motion-NEGATIVE-fast-SUBORDINATIVE-1.PL
   We stopped quickly

i. nayuruaraput.
   nayur-uar-ar-put
   observe-without.serious.purpose-TR.INDIC-B1.PL/3.PL
   and we watched them for some time.
In languages with independent pronouns, the reference of first- and second-person pronouns is established by the speech event: first-person pronouns are directly interpreted as representing the speaker (with perhaps others) and second-person pronouns as the hearer (with perhaps others). The same direct interpretation can be seen of Yup’ik first- and second-person pronominal suffixes. An example appears in lines (h–i) above: ‘We stopped quickly and we watched them for some time’.

The reference of independent third-person pronouns in English and other languages can be established by a lexical nominal in prior discourse. The same strategy can be seen in line (e): ‘Oters! What do you say we stop and watch them for a while?’ The nominal antecedent need not be in the immediately preceding sentence. The next reference to the otters was a pronominal suffix several lines later: ‘Hurry! Ask him to do it! We stopped quickly and watched them for some time’ (i).

Reference can also be established through inference and/or extralinguistic context. When Mrs. Charles said, ‘Hurry! Ask him to do it!’ (g) the referent of the pronominal suffix ‘him’ was the person operating the motor on the boat. The reference was not established by a lexical antecedent, but it was easily inferred from the situation without further explanation: this was the only person in a position to carry out the suggestion.

So far the principles for establishing the reference of Yup’ik pronominal suffixes are similar to those for establishing the
reference of English or German independent pronouns. A referent may be designated by a pronominal suffix so long as it can be associated with an idea of a particular individual, a group of individuals or a typical member of a class. But it is obvious from the otter anecdote that Yup'ik pronominal suffixes differ in an important way from English and German pronouns. They may co-occur with a coreferential lexical nominal in the same clause, and it can be this nominal that establishes the reference. We saw this structure in the opening sentence of the anecdote with the name Ayaginar and later with the nominal iliit ‘one of them’.

(9) Yup'ik otter anecdote (Elena Charles, speaker p.c.)
   a. Ayaginar piuq,  
      Ayaginar pi-u-q  
      name do-INTR.INDIC-3.SG  
      ‘Ayaginar said,  
   j. iliit pugellrani  
      iliit pugellrani  
      associate-3.PL/SG surface-PAST.CONTEMPORATIVE-3.SG  
      ‘When one of them surfaced, . . .’

In English and German, reference can be established within the clause for some pronouns: Mary always takes her dog with her. The only restriction in these languages is against the establishment of pronominal reference for core arguments by material within the clause: Mary she takes her dog with her. Yup’ik simply lacks this restriction. In Yup’ik, reference can be established in all of the same places as in English and German, by extralinguistic context, inference, the speech act itself and linguistic context beyond the clause, and within the clause as well. This phenomenon will be discussed further in section 4.

All of the pronominal suffixes in the otter anecdote are referential. But as Evans (1999) points out, pronominal affixes in languages like Yup’ik must be present in every clause. Speakers of Yup’ik, like speakers of other languages, do make non-referential mentions. Evans concludes that pronominal affixes, particularly those representing direct objects, must be incapable of distinguishing referentiality. A closer look at the way Yup’ik speakers use their language, however, shows that pronominal suffixes are as referential and definite as
English pronouns. Non-referential mentions are generally made with alternative constructions that avoid the use of pronominal suffixes.

3.2. Yup’ik generic reference

At the edge of referentiality is generic reference. Generic mentions are usually classified as referential by semanticists, but generic reference is in a sense more abstract than other reference, in that it evokes a typical member of a class, rather than an identifiable individual in the real world. Evans (1999: 265) notes that in English and other European languages, ‘third person personal pronouns do not allow a generic interpretation [as in (10a)]; to obtain this a bare plural must be used instead of a pronoun’, as in (10b).

(10) Specific and generic reference (Evans 1999: 265)
   a. She scolds them.
   b. She scolds people.

Evans reports that in Bininj Gun-wok, both can be encoded with a bound object prefix.

(11) Bininj Gun-wok (Gun-djeihmi) plural objects (Evans 1999: 265)
alege daluk gaban-du-ng.
FEM.DEM woman 3I3.pl-scold-NON.PAST
‘That woman scolds people.’ or ‘That woman is scolding them.’

In many languages, certain pronouns have a conventionalised generic use, like English you and they. Evans cites the example They always try to get you to pay more than you want to (1999: 257). In Yup’ik, pronominal suffixes are never given generic readings on their own. Pronominal suffixes are used only when the referent they evoke is established. A Yup’ik construction translated with generic reference is in (12). When her husband returned from a hunt empty-handed, Mrs. Charles greeted him with this remark.

(12) Yup’ik generic reference (Elena Charles, speaker p.c.)
Canrituq.
can-rute-u-q
do.something-NEG-INTR.INDIC-3.SG
‘It’s all right.'
Yuut  piterrlainayuitut.
yuk-t  pi-te-rrlainar-yu-ite-u-t
   person-pl.  thing-catch-constantly-hab-neg-intr.indic-3.pl
People don't always catch game.

The noun yuut 'people' established a referent that was then picked
up in the pronominal suffix -t 'they' on the verb. This verb, with its
third-person-plural pronominal suffix, could not be used without an
identifiable referent. It could constitute a perfectly acceptable sentence
alone, but the pronominal suffix could only be interpreted as referring
to some referent established by previous discourse or the extra-
linguistic context: Piterrlainayuitut 'They don't always catch game'.

3.3. Yup'ik qualifying nouns

Another type of potentially non-referential expression in English
involves nouns that qualify the nature of an event, as in Chafe's
example He loves telling jokes. Such entities are not referred to by
pronominal suffixes in the Yup'ik counterparts to these expressions.
A different kind of construction is used.

The language contains an extensive inventory of derivational
suffixes, among them many verbalisers, some with quite concrete
meanings. The verb 'to fish' in (13) is based on the noun root neqe-
'fish, food' with a verbalising suffix -ssur- 'hunt, catch'.

(13) Yup'ik denominal verb derivation (George Charles, speaker p.c.)
Neqssurnaurtut-llu.
   neqe-ssur-naur-tu-t = llu
      fish-hunt-customarily-intr.indic-3.pl = and
   'And they used to fish.'

The base of the verb, the noun root neqe- 'fish', is not referential, so
the fish are not represented in the pronominal suffix, and the verb is
intransitive.

Evans notes that 'have' constructions often take non-referential
objects. The kind of Yup'ik denominal intransitive construction
seen in (13) is also used to predicate possession. The possessed item
is not expressed as a core argument of the clause. The noun
representing it simply serves as the base of the verb, narrowing
the kind of ownership predicated.
Yup'ik possession (George Charles, speaker p.c.)

Qimugtengqerrllruuq aataka.
qimugte-ngqerr-lrlru-u-q aata-ka

*he used to dog-have* my father

'My father used to have dogs.'

Such denominal intransitive constructions are also used to predicate the presence and absence of entities.

Yup'ik presence (Elena Charles, speaker p.c.)

Campaput yungqellruaqelliniuq.
campa-put yug-ngqerr-llru-yaqe-llini-u-q
camp-1.PL/SG person-have-PAST-actually-apparently-INTR.INDIC-3.SG

our camp (ABS) apparently it had actually person-had

'There had apparently been people at our camp.'

Yup'ik absence (Elena Charles, speaker p.c.)

Nunat nukalpiartaicuunateng.
nuna-t nukalpiar-taite-yaite-na-teng

village-PL man.in.prime-lack-HAB.NEG-SUBORDINATIVE-3.PL

villages they are not usually lacking in hunters

'The villages are never without a man in his prime (a good hunter and provider).'

These denominal constructions serve many of the same kinds of lexical, syntactic and discourse purposes as noun incorporation in other languages (Mithun 1998a, b). While they are probably descended from noun–verb compounds, they are now structurally distinct. The morphemes with verb-like meanings such as ‘hunt’, ‘have’ and ‘lack’ are no longer roots, but rather derivational suffixes. They form a large but closed set, and never occur in initial position in words, the only position in which roots occur.

3.4. Definiteness in Yup'ik

Evans (1999) proposes that an important difference between the independent pronouns of English and German on the one hand, and the pronominal affixes of polysynthetic languages on the other,
is the fact that independent pronouns are always definite, while pronominal affixes may or may not be. As noted earlier, pronominal suffixes in Yup’ik and other polysynthetic languages are used only for core arguments. Indefinite core arguments are actually relatively rare in Yup’ik. Participants are usually introduced in other grammatical positions. But sentences do occur with lexical nominals that can be interpreted as indefinite, that is, with nominals that represent entities not previously identifiable to the audience. (Definiteness is not marked formally in Yup’ik.)

(17) Yup’ik indefinite nominal (Elena Charles, speaker p.c.)

\[
\text{Allaneq-am} \quad \text{ikantengnaqallruuq} \\
\text{allaneq-am} \quad \text{ikani-te-ngnaq-e-la-lru-u-q} \\
\text{stranger} \quad \text{EMPHATIC over.there.RESTR-be-try-HAB-PAST-INTR.INDIC-3.SG} \\
\]

‘A stranger tried to stay over there

\[
\text{qikertarrarmi.} \\
\text{qikertar-rrar-mi} \\
\text{island.little-LOCATIVE} \\
\text{on a little island.’}
\]

At issue here is whether pronominal affixes that are coreferential with indefinite lexical nominals must themselves be considered indefinite, that is, non-identifiable. We know that in languages like English, independent pronouns need not have the same definiteness value as their lexical antecedents. English speakers regularly introduce referents with an indefinite NP, then subsequently refer to them with (definite) pronouns: A stranger tried to stay over there. He never managed to catch any fish. Yup’ik pronominal suffixes do differ from English independent pronouns in that their referents may be identified within the same clause. (Evans notes that even English allows speakers to establish the reference of pronouns within the same sentence, as in He who hesitates is lost.)

Yup’ik has gone further than many languages in prohibiting indefinite transitive patients altogether. Such participants can be expressed only as obliques, marked with the ablative case. Recounting a story about two hunters, Mr. Charles noted that they caught a small bird. The indefinite nominal a small bird could not be cast as a
core argument, so it was expressed as an oblique (ablative) and not represented in the pronominal suffix.

(18) Yup'ik indefinite (George Charles, speaker p.c.)
Yaqulcuarmek-llu-gguq,
yau-llek-cuar-mek = llu = gguq
wing-have-little-ABLATIVE = also = HEARSAY
a little bird, they say
‘It seems those two
pitellinilutek taukuk.
pite-llini-lu-tek tauku-k
catch.game-apparently-SUBORDINATIVE-3.DU that.RESTR-DU
they two apparently caught those two
caught a small bird.’

Once introduced, the bird was considered identifiable (definite), so it could be expressed as a core argument and referred to by pronominal suffixes.

(19) Yup’ik definite (George Charles, speaker p.c.)
Wani-wa nerevkenaku, ...
now = right nere-vke-na-ku
right now eat-NEG-SUBORDINATIVE-R/3.SG
right now we not eating it now
‘Let’s not eat it right now, . . . ’

Many languages show prohibitions against indefinite or non-specific core arguments. The Yup’ik prohibition against indefinite transitive absolutive probably reflects the fact that this is one of the most common positions for non-specific mentions: I want a cat; I’ll get a cat; I’m looking for a cat. The choice of an alternative construction, in which the participant is not expressed as a core argument, was apparently generalised.

3.5. Yup’ik indefinite pro forms ‘someone’, ‘something’

Since they are referential and definite, English anaphoric pronouns are not used with open reference to mean ‘someone’ or ‘something’. English speakers do not use a sentence like He borrowed it to mean
‘Someone borrowed it’, even if they know that the borrower was a man. Similarly, they do not use a sentence like *He married her* to mean ‘He married someone’. The same principles hold for Yup’ik pronominal suffixes. They are used only when there is an identifiable referent.

(20) Yup’ik third-person reference (George Charles, speaker p.c.)

Navrallruyugnarqaa.

borrown-PAST-probably-TR.INDIC-3.SG/3.SG

‘He borrowed it.’

Not: ‘Someone borrowed it.’

‘He borrowed something.’

In order to express a statement like ‘Someone must have borrowed my knife’, speakers establish a hypothetical referent with an independent pro form ‘someone’, and refer to this hypothetical referent pronominally within the verb.

(21) Yup’ik independent indefinite (George Charles, speaker p.c.)

Kitum nuussiq a navrallruyugnarqaa.

someone.ERG knife-l.SG/SG borrow-PAST-probably-TR.INDIC-3.SG/3.SG

‘Someone must have borrowed my knife.’

Pronominal suffixes referring to transitive patients show the same pattern. The Yup’ik sentence in (19) can mean only ‘He married her’ or ‘She married him’. It cannot be interpreted as ‘He married someone’. The pronominal suffix must be referential.

(22) Yup’ik (George Charles, speaker p.c., elicited)

Kassuutellrua.

marry-PAST-TRANSITIVE.INDICATIVE-3.SG/3.SG

‘He married her’ or ‘She married him.’

Not: ‘He married someone.’

To express ‘He married someone’ there are two options. If the identity of the bride is unimportant in the discourse at that point,
an intransitive form of the verb marry is used, with no pronominal reference to the indefinite patient.

(23) Yup'ik detransitivisation (George Charles, speaker p.c., elicited)

Kassu utellruuq.
kassuute-llru-u-q
marry-PAST-INTRANSITIVE.INDICATIVE-3.SG
‘He married (someone).’ = ‘He got married.’

If the speaker wishes to establish a referent with an independent indefinite nominal representing the semantic patient of an event, rather than simply leaving it unspecified, an independent pro form meaning ‘someone’ or ‘something’ can be used. As an indefinite, however, it cannot qualify as the absolutive of a transitive clause. An intransitive verb is used instead, and there is no pronominal mention of the indefinite participant. The indefinite pro form is in an oblique case, the ablative.

(24) Yup'ik indefinite patient (George Charles, speaker p.c., elicited)

a. Kitumek tangellrua.
kitu-mek tangerr-llru-u-a
someone-ABLATIVE see-PAST-INTRANSITIVE.INDICATIVE-1.SG
‘I saw somebody.’
b. Camek nalkeute-u-q
ca-mek nalkutuq.
something-ABLATIVE find-DETRANSITIVISE-INTRANSITIVE.INDIC-1.SG
‘I found something.’

Evans (1999: 270) has devised an ingenious test for referentiality that involves repetition. A Bininj Gun-Wok adverbial prefix meaning again can be used (a) for exact replays (He fell over again), (b) for transition back to a previous state (The jungle grew back over the ruins again) and (c) for replays with token replacement, that is, repetition of actions in which one or more participants is replaced with another of the same type (I caught a fish yesterday, and I caught (one) again today; I saw someone in there yesterday, and saw someone else in there again today). It is type (c) that is of interest here. Evans reports that in Bininj Gun-wok, a regular third-person pronominal prefix can appear in such constructions meaning
‘another, someone else’, where a personal pronoun would not be acceptable in English.


wanjh bi-yawoyh-yam-i

then 3/3higher.object.past-again-spear-past.imprf

na-buyika

masc-other

‘then he would (go again and) spear another’

Under repetition, Yup’ik pronominal suffixes pattern like English independent pronouns: their reference must remain constant. The transitive verb in (26a) can be used only if the participant is the same through the repetition, that is, if the groom married the same woman again. If he married someone else the second time around, the intransitive verb in (26b) must be used, with no pronominal reference to the bride.

(26) Yup’ik pronominal suffixes with repetition (George Charles, speaker p.c., elicited)

a. Ataam cali kassuutellrua.

ataam cali kassuute-llru-a-a

again still marry-past-tr.indic-3.sg/3.sg

‘He married her again.’

b. Ataam cali kassuutellruuq.

ataam cali kassute-llru-u-q

again still marry-past-intr.indic-3.sg

‘He remarried.’

This contrasts with the interpretation of the noun roots that serve as the basis for denominal verbs. Since they are non-referential, they need not be interpreted with constant reference.

(27) Yup’ik denominal verb with repetition (Jacobson 1984: 525)

Tuntutenqigtuq.

tuntuk-te-nqigte-u-q

caribou-catch-again-intr.indic-3.sg

‘He caught caribou again.’

The structure of the Bininj Gun-wok example in (25) above, ‘then
he would go again and spear another’, is in the end probably much like its counterparts in Yup’ik and other languages with pronominal affixes. The Bininj Gun-wok again prefix may certainly have special properties that distinguish it from the English adverb. But whether it does or not, the independent nominal ‘other’ in ‘then he would spear it other’ has the capacity to establish a referent, which is referred to by the pronominal prefix in the verb.

3.6. Yup’ik non-specific mentions

Among the types of non-referential mentions are non-specific nominals, those for which there is not necessarily any referent at all. Such mentions occur, for example, in irrealis contexts, as in the frequently cited I want to marry an Irishman, where the speaker has no particular Irishman in mind. The grammar of Yup’ik ensures that such entities are never represented by pronominal suffixes. The nominals in (28) and (29) below can be understood as non-specific. The speaker may utter the first without having a particular woman in mind, and the second without knowing whether a potential helper exists.

(28) Yup’ik non-specific mention (George Charles, speaker p.c., elicited)

Kassuucugtua
kassuute-yug-tu-a
marry-DESIDERATIVE-INTR.INDIC-1.SG
‘I want to marry

cyupiarmek arnamek.
yuk-piar-mek arnar-mek
person-real-ABLATIVE woman-ABLATIVE
a Yup’ik woman.’

(29) Yup’ik non-specific mention (George Charles, speaker p.c.)

Yuartua
yuar-tu-a
search.for-INTR.INDIC-1.SG
‘I am looking for
ikayurtakamnek.

\textit{help-NOMINALISER-UNREALISED.FUTURE.THING-1.SG/3.SG.ABLATIVE}

\textit{my potential helper}

someone to help me.’

Because of the prohibition against indefinite transitive patients in Yup’ik, these non-specific entities are cast as obliques (ablatives). The clauses are thus grammatically intransitive, and there is no pronominal reference to either the Yup’ik woman or the potential helper.

3.7. Yup’ik indefinites under negation: ‘no one’, ‘nothing’

Other commonly cited non-referential expressions are negated indefinites such as ‘no one’, ‘not anyone’, ‘nothing’ and ‘not anything’. As noted, Yup’ik pronominal suffixes are always referential, even under negation. The transitive clause in (30a) can be used only with a specific, referential patient. If the patient is non-referential, an intransitive version like that in (30b) must be used, with no pronominal reference to the non-existent individual.

(30) Yup’ik pronominal suffixes with negation (George Charles, speaker p.c., elicited)

a. Kassuutenritaa.

\textit{marry-NEGATIVE-TR.INDIC-3.SG/3.SG}

‘He didn’t marry her.’

b. Kassuutenrituq.

\textit{marry-NEGATIVE-INTR.INDIC-3.SG}

‘He didn’t marry anyone.’

There is also an alternative construction for expressing negative indefinites, parallel to that used for non-negatives. A hypothetical referent can be established with an independent indefinite ‘someone’ or ‘something’, which is then referred to in statements about that hypothetical world. Such statements can be negated: ‘It is not the case that someone came’.
(31) Yup'ik indefinite negation (George Charles, speaker p.c.)
   a. Kina tainrituq.
      kina tai-nrite-u-q
      someone come-NEGATIVE-INSTR.INDIC-3.SG
      ‘No one came.’
   b. Kinkut tangenritaa.
      kinkut tangerr-nrite-a-a
      someone.PL see-NEGATIVE-TR.INDIC-3.PL/3.SG
      ‘No one saw him.’

Since the independent indefinite pro forms are indefinite, they cannot be cast as transitive absolutes. They appear as obliques (ablatives), and the verb is intransitive.

(32) Yup'ik indefinite negation (George Charles, speaker p.c.)
   a. Kitumek tangellrunrituq.
      kitu-mek tangerr-lru-nrite-u-q
      someone-ABLATIVE see-PAST-NEGATIVE-INTR.INDIC-3.SG
      ‘He didn’t see anyone at all.’
   b. Camek nalkutentuq.
      ca-mek nalke-ute-nrite-u-q
      something-ABLATIVE find-DETRANSITIVE-NEG-INTR.
      INDIC-3.SG
      ‘She didn’t find anything at all.’

3.8. Yup’ik content questions

Other non-referring expressions are question words. Question words themselves may not be referential, but they can establish a referent which is then referred to pronominally. Content questions of course presuppose the existence of the entities to be identified. The question in (33) presupposed the existence of people at a feast.

(33) Yup'ik content question (George Charles, speaker p.c.)
   Kinkut-llu tuantellruat?
   kinkut = lllu tuan-te-lru-a-at
   who.PL=too there.RESTR-go.to-PAST-TR.INDIC-3.PL/3.SG
   and who all they went to that place
   ‘So who all was there?’
The prohibition against indefinite transitive patients extends to question words, which are the same as indefinite pro forms, so the question words used for these forms are oblique.

(34) Yup’ik content question (Elizabeth Ali, speaker p.c.)

Camek neqengqercit?
ca-mek neqeg-ngqerr-ci-t

something-ABLATIVE food-have-INTERROGATIVE-2.SG

‘What do you have to eat?’

3.9. Yup’ik weather terms

There is one context in which Yup’ik pronominal suffixes are used non-referentially: weather expressions. The final -q in the verbs below is the third-person singular.

(35) Yup’ik weather expressions

a. Ivsirtuq.
   ivsir-tu-q
   rain-INTR.INDIC-3.SG
   ‘It is raining.’

b. Akercirtu-q. ‘It is sunny.’

c. Kavciru-q. ‘It is hailing.’

d. Taicirtu-q. ‘It is foggy.’

e. Qaniru-q. ‘It is snowing.’

It would be difficult, however, to argue that these examples reveal a difference in referentiality or definiteness between Yup’ik pronominal suffixes and English or German independent pronouns. English it and German es are used in exactly the same way: It is raining, Es regnet.

The Yup’ik pronominal suffixes thus match the independent pronouns of English and German in referentiality and definiteness in all ways but one. Their referentiality and identifiability can be established not only by the extralinguistic context, inference, the speech event and a lexical nominal elsewhere in the discourse, but also by a lexical nominal in the same clause. A key to unpacking the features of referentiality and identifiability is the recognition that a non-referential or non-identifiable lexical nominal may introduce a
referent which is then referred to by referential and definite pronominal affixes. The lexical nominal and pronominal affixes need not match each other in referentiality or identifiability. Non-referential mentions in Yup’ik are accomplished by other constructions: derivation and detransitivisation.

4. Navajo

The fact that the referentiality and definiteness values of pronominal affixes are independent of those of the lexical nominals that establish their reference is particularly easy to see in Navajo. Navajo is an Athabaskan language spoken in the southwestern United States, primarily in Arizona and New Mexico. It is polysynthetic, but it differs typologically in a number of ways from Yup’ik. While Yup’ik is exclusively suffixing, Navajo is exclusively prefixing. While Yup’ik independent nominals are marked for number and case, Navajo nominals are not. The meanings expressed by affixes are generally quite different. But nearly all of the properties of the Yup’ik pronominal suffixes are echoed in the Navajo pronominal prefixes. In Navajo as in Yup’ik, obligatory pronominal affixes on every verb identify the core arguments of the clause. The Navajo pronominal prefixes, like the Yup’ik suffixes, distinguish number and grammatical role. There are also several categories of third person. As in Yup’ik, there are no independent pronouns comparable to the unstressed independent pronouns of English or German. Verbs with their pronominal prefixes can constitute complete grammatical sentences in themselves. A sample verb is in (36).

(36) Navajo verb (Dolly Soule, speaker p.c.)
Chihidahitiitl’iijid.
   ch’ihi-da-0-hi-iid-l-ti’ijd
   out.horizontally-DISTR-3.OBJ-SERIATIVE-1.PL.SUBJ-TR-fly.rapidly.PRF
   ‘We threw them out one after another.’

In Navajo as in Yup’ik, the basic pronominal prefixes are used only referentially, even when they are formally zero, like the third-person object prefix in (36) above. Non-referential mentions are made with alternative constructions. Some are the same as in Yup’ik, and some are different. Navajo contains no denominal
verb derivation like that seen in Yup’ik, or noun incorporation, though some other Athabaskan languages do. It does contain detransitivising morphology, however, which eliminates non-referential entities from expression as core arguments, and accordingly from expression in pronominal prefixes.

4.1. Navajo detransitivisation

Languages of the Athabaskan family contain a small set of old derivational prefixes, traditionally (and inappropriately) termed ‘classifiers’. Their basic function is to alter transitivity. Two of these, -l- and -d-, serve to detransitivise verbs. The effect of such detransitivisation can be seen in (37), where there is no pronominal reference to the agent, the person or people putting things away.

(37) Navajo detransitivisation (Dolly Soulé, speaker p.c.)

Hasht’e’nii’nil.
hasht’e’-ni-d-nil

in.order-UNSP.OBJ-TRM-DETRANSITIVER-move.several.objects.PRF
‘Things were put away.’

Transitivity alternations involving these prefixes are pervasive, though their semantics are not always transparent, because they have been used to form lexical items for specific purposes, lexical items that can continue to develop semantically as independent entities.

4.2. The Navajo pronominal categories

As noted above, Evans (1999: 255) has proposed that pronominal affixes must differ from independent pronouns in lacking the capacity to distinguish referentiality and definiteness. Particularly pertinent to this issue are the Navajo pronominal categories.

4.2.1. The Navajo basic pronominal prefixes

The basic subject pronominal prefixes can be seen in the paradigm in (38). These verbs are based on the imperfective form -né of the stem ‘play’, with the atelic prefix na- ‘around’. (Due to extensive phonological processes, individual prefixes can vary considerably in
their shapes, and it can be difficult to discern the morphological components of prefix strings.) The pronominal prefixes here have been underscored.

(38) Navajo pronominal subjects

naashné ‘I am playing’
naniné ‘you are playing’
naané ‘(he or she) is playing’
ncii’né ‘we two are playing’
naahné ‘you two are playing’
naané ‘(they two) are playing’
ndeii’né ‘we (three or more) are playing’
ndaahné ‘you (three or more) are playing’
ndaané ‘they (three or more) are playing’

There are distinct prefixes for first- and second-person singular and dual subjects. Plurality (three or more) is indicated by a separate prefix, basically da-, which originated as a distributive and still serves that function in some contexts. The third-person subject prefix is zero, but even the zero form is always used referentially, that is, only when its referent is clear from the extralinguistic or linguistic context.

Direct and indirect objects are also expressed by pronominal prefixes. The verb ‘carry up’ below is built on the imperfective stem teeh with the prefix ha- ‘up’.

(39) Navajo pronominal objects

a. hashniiteeh
   ha-sh-ni-l-teeh
   up-1.SG.OBJECT-2.SG.SUBJECT-TRANSITIVE-carry.IMPRF
   ‘you are carrying me up’

b. hanishteeeh
   ha-ni-sh-l-teeh
   up-2.SG.OBJECT-1.SG.SUBJECT-TRANSITIVE-carry.IMPRF
   ‘I am carrying you up’

c. hanititeeh
   ha-0-ni-l-teeh
   up-3.SG.OBJECT-2.SG.SUBJECT-TRANSITIVE-carry.IMPRF
   ‘you are carrying him/her up’
With first- or second-person subjects, the third-person object pronoun is again zero, as in (39c). But if the subject is third person, the third-person objects take one of two forms: proximate bi- or obviative yi-.

(40) Navajo third-person objects
   a. habitteeh
      ha-bi-0-l-tech
      up-3.PROXIMATE.OBJECT-3.SUBJECT-TRANSITIVE-IMPRF
      ‘he/she/it is carrying him/her up’
   b. hailteeh
      ha-yi-0-l-tech
      up-3.OBVIATIVE.OBJECT-3.SUBJECT-TRANSITIVE-IMPRF
      ‘he/she is carrying him/her/it up’

The proximate prefix bi- is used essentially if the object is higher in discourse topicality than the subject (A mosquito bit him), and the obviative prefix yi- is used if the object is lower (He swatted it).

All three of these third-person pronominal prefixes, zero, bi- and yi-, are used only referentially, that is, to evoke established referents. Repetitive constructions like those discussed by Evans confirm the referentiality of these pronominal prefixes, even when they are zero in form. Navajo contains a prefix with meanings essentially the same as that described for Bininj Gun-wok. It indicates repetition of an action or return to a previous location, state or condition. Significantly, pronominal reference must remain constant through the repetition. The command in (41a) could be a request to wash an object or bathe a baby. That in (41b) is a request to wash the same object or bathe the same baby again. It could not be used to ask someone to wash another object or another baby.

(41) Navajo repetitive (Dolly Soulé, speaker p.c., elicited)
   a. Tánígis!
      tá-0-ní-gis
      involving.water-3.OBJECT-2.SG.SUBJECT-rub.IMPRF
      ‘Wash it!’
(41) b. Tánáánígis!
 tá-náá-0-ní-gíš
ingvolver,water-REPEETITIVE-3.OBJECT-2.SG.SUJET-ROOT.IMPREF
‘Wash it again!’

4.2.2. Navajo generic mentions

Navajo contains a separate pronominal category for generic reference to humans. It has the basic form ji- for subjects and hw- for objects and possessors, and could often be translated as ‘one’ or ‘people’. As can be seen in (42c, d), it also patterns like the British use of ‘one’ in that continuing generic references are still generic in form: ‘When one isn’t hungry one doesn’t eat’, ‘One is fortunate to have one’s food’. As might be expected, the generic prefixes appear in general statements. Statements in this form are often used as indirect commands and for indirect reference to the speaker.

(42) Navajo generic prefix (Dolly Soulé, speaker p.c.; Goossen 1995: 283, 284)

a. Ch’ééh hááhoóoshíí ní-da-jích’íd.
 ch’ééh hááhoóoshíí ni-da-‘-ji-ch’íd
 futitely avidly around-DISTR-UNSP.OBJ-GENERIC- scratch.IMPREF
 futitely avidly one was scratching things here and there
‘People were still really digging around.’

b. Doo ájíníí da.
 doo ‘a-ji-níí da
 not UNSP.OBJ-GENERIC.SUJET-say.IMPREF NEG
‘One doesn’t say that.’ = ‘Don’t say that.’

c. Doo dichín jíljígoó
 doo dichín ji-líjí = góó
 not hunger GENERIC.SUJET-be = because
‘When a person isn’t hungry,
 doo jíyáá da.
 doo ji-yáá da
 not GENERIC.SUJET-eat NEGATIVE
 he doesn’t eat.’
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(42) d. **Hach’iyá**

hw-ch’iyá’

**GENERIC.POSSESSOR-FOOD** there-exist.NEUTER.IMPRF =

**SUBORDINATE**

**one’s food**

‘One is fortunate

**GEI{RTC.POSSFSSOR-/0**

to have food.’

This category is also used for respectful reference, such as to relatives. It is used as well to track protagonists in narrative and to differentiate participants. For this reason it is sometimes termed the alternate third person or fourth person by Navajo grammarians.

4.2.3. Navajo unspecified participants

As noted, if a verb like -cha ‘cry’ is used with a zero third-person-subject pronominal prefix, it can only mean ‘He is crying’ or ‘She is crying’, not ‘Someone is crying’. (Navajo verbs cannot consist of a single syllable. If there is not sufficient morphological material to yield two syllables, a meaningless prothetic ‘peg’ syllable yi- is added for bulk. This syllable is distinct from the third-person-obviative object prefix mentioned above and an aspectual prefix of the same shape, which occupy different positions in the prefix string.)

(43) Navajo third-person subject

Yicha.

yi-0-cha

**PROTETIC-3.SUBJECT-cry.IMPRF**

‘He or she is crying.’ Not: ‘Someone is crying.’

To say ‘Someone is crying’, the unspecified-subject prefix is used. (The basic shape of this prefix is a glottal stop, usually written ‘ in the practical orthography but omitted word-initially. Various vowels are added to it in particular contexts, however, so the prefix may appear as ‘-, ‘a-, ‘i- or ‘e.) The unspecified-subject
prefix is usually used to focus on an event rather than the participants.

(44) Navajo unspecified subject (Young 2000: 36)

\[\begin{align*}
a. & \quad \text{'a-cha} \\
& \quad \text{UNSPECIFIED_SUBJECT-cry.DURATIVE.IMPRF} \\
& \quad \text{‘There is crying, someone is crying.’}
\end{align*}\]

The situation is the same for objects. With first- or second-person subjects, the third- person pronominal object prefix is zero, as in verbs meaning ‘I’m eating it’ or ‘I ate it.’ Even this zero is referential. The verbs with the zero object prefix cannot be used to mean ‘I’m eating’ or ‘I ate’. With third-person subjects, the third-person pronominal object prefix is \(yi\). This prefix, too, is referential: it can be used only to mean ‘He’s eating it’ or ‘He ate it’, not ‘He ate’.

(45) Navajo referential objects

\[\begin{align*}
a. & \quad \text{Yishá}.
\quad \text{yi-0-sh-a} \\
& \quad \text{PROTHETIC-3.OBJECT-1.SG.SUbject-eat.IMPRF} \\
& \quad \text{‘I’m eating it.’ Not: ‘I’m eating.’}
b. & \quad \text{Yiyíyáá’}.
\quad \text{yi-yíyáá’} \\
& \quad \text{3.OBJECT-COMPLETEIVE-eat.PRF} \\
& \quad \text{‘He ate it.’ Not: ‘He’s eating.’}
\end{align*}\]

If the object is unspecified, the unspecified-object prefix is used. It has the same shape as the unspecified-subject prefix, but it occurs in the position occupied by the other object prefixes, before the unspecified-subject prefix position.

(46) Navajo unspecified objects

\[\begin{align*}
a. & \quad \text{Ashá}.
\quad \text{'a-sh-á} \\
& \quad \text{UNSPECIFIED_OBJECT-1.SG.SUBJECT-eat.IMPRF} \\
& \quad \text{‘I’m eating.’}
b. & \quad \text{Ayíyáá’}.
\quad \text{'a-yíyáá’} \\
& \quad \text{UNSPECIFIED_OBJECT-COMPLETEIVE-3.SUbject-eat.PRF} \\
& \quad \text{‘He ate.’}
\end{align*}\]
4.2.4. *Navajo* ambient mentions

Navajo contains another prefix category for non-referential mentions. It has the basic form *hw-* (also appearing as *ho-*, *hoo-*, *ha-*, or *haa*). Sometimes termed the 'areal' or 'spatial' category, it is used for ambient conditions, characteristics of an area and much more. Its function can be seen by comparing the pairs of verbs below. The first verb in each set has a basic referential third-person zero pronominal prefix, the second, a *hw-* prefix.

(47) *Navajo* *hw-* subjects (Young, Morgan and Midgette 1992)

a. -zhóóh
   Yizhóóh. 'It (a horse or goat) becomes gentle, tame, tractable.'
   Hoozhóóh. 'Things (weather, conditions) become pleasant, peaceful.'

b. -tíée'
   Ditléé'. 'They (clothes) are wet.'
   Hoditléé'. 'It’s wet around here, the ground is wet.'

(48) *Navajo* *hw-* objects (Young, Morgan and Midgette 1992)

a. dééh ‘move multiple objects swiftly through the air’
   Yishdééh. ‘I’m wiping it off.’
   Hashdééh. ‘I’m cleaning up, clearing up around here, removing vegetation, tidying up the place.’

b. -ch’id ‘scratch, paw’
   Yishch’id. ‘I’m scratching it.’
   Hashch’id. ‘I’m feeling around an area, as in hair for lice.’

The differences among the basic third-person category the unspecified category and the ambient or areal category, can be seen by comparing the sets of verbs in (49). (The basic third-person form of ‘be yellow’, with zero third-person subject prefix, contains a prefix *li-* that marks physical attributes.)

(49) *Navajo* unspecified *- and ambient *hw-* (Young, Morgan and Midgette 1992)

a. Łitoso. ‘It is yellow or yellowish green.’ (zero)
   Altso. ‘There is a yellow-green spot or patch.’ (*-)
   Haltso. ‘The area is yellow-green.’ (*hw-*)
Both the unspecified and areal prefixes have become elements of numerous lexicalised prefix stem collocations. In these contexts the original meanings of the prefixes have often expanded and sometimes even faded. They are part of the basic verbs used for 'drive' and 'ride', for example, for 'talk' and 'sing', 'cause trouble' and more.

(50) Navajo sample collocations (Dolly Soulé, speaker p.c.)

a. Nihil ilwod.
   nih-il 'i-l-wod
   1.pl.-with UNSPECIFIED.SUBJECT-DETRANSITIVISER-bend.PRF
   with us something bend (something ran)
   'Something ran with us = we drove.'

b. Bik'ijj' hashchiih.
   bi-k'ijj' ha-sh-l-chijj
   3-onto AMBIENT.OBJECT-1.SG.SBJ-TRANSITIVISER-
   become.nasty.IMPRF
   'I cause things to become nasty for him.' = 'I bring trouble
   on him.'

4.3. The Navajo prefix categories in use

Since Navajo offers such a range of prefix options, it is instructive to examine the kinds of choice made by speakers in potentially non-referential and indefinite contexts.

4.3.1. Referentiality in Navajo

The reference of Navajo pronominal prefixes can be established in the same ways as that of English and German independent pronouns: by the extralinguistic context, by the speech act itself (for first and second persons), by linguistic context or by inference from information in any of those. As in Yup'ik, it may also be established by lexical nominals within the same clause. If a third person is identified by a lexical nominal in the same sentence, a basic third-person prefix always appears with the verb: zero, bi- or yi-.
(51) Navajo lexical subject (Dolly Soulé, speaker p.c.)

Аадээ нт’ээ’ шэхээ’ шэзэхи,
аа = дэо нт’ээ’ шээш = кэ = шээ’
there = from then boy = pl = diminutive
‘Then from there some little boys

yikaháąą.
yi-о-ка = ла
PROG-3.S. DETRANSITIVISE-MULTIPLE.walk.

they were walking along

came along.’

4.3.2. Generic reference
As expected, generic reference is made with the special generic
pronominal prefixes. When the generic (fourth-person) prefixes
ji-lhw- ‘one’ are used generically, they do not co-occur with a lexical
nominal. The alternation can be seen in two sentences from an
anecdote told by Mrs. Soulé that were separated by a small side
comment. In the first she used a generic construction, and in the
second a referential third-person lexical nominal ‘all the people’
with third-person (zero) subject prefix.

(52) Navajo (Dolly Soulé, speaker p.c.)

Ако т’ээ’ шэ шэжээ’.
ако т’ээ’ = го шэ шэ = ни-с-шэ
then night = at probably one-TRM-DUR-SEQ-MULTIPLE.LIE.DOWN
‘And then at night they must have gone to bed.’

[A long time ago, when we used to live in hogans,
in those days we used to sleep on top of sheepskins.]

Ако еи шэ т’э о Ат’е
ако еи шэ т’э о Ат’е
then that perhaps all UNSP.SUBJECT-BE.NEUTER.IMPRF
then that perhaps all it is
‘And then probably all
people had gone to bed.

4.3.3. Definiteness in Navajo

Even if the lexical nominal is indefinite, as in ‘Then some little boys came along’ in (51) above, a basic third-person prefix appears on the verb rather than an unspecified prefix. The same situation can be seen with direct objects. If a lexical nominal identifies the object, a basic third-person pronominal prefix is chosen. (Navajo does not have the prohibition against indefinite direct objects seen in Yup’ik.)

(53) Navajo lexical object (Dolly Soulé, speaker p.c.)

\[ \text{Haishii shinoolch66l.} \]

\[ \text{haishii shi-n-oo-l-ch66l} \]

\[ \text{someone l.sc.osrscr-rH-3.suBJEcr.PRoc-TRANsrrIvIsER-chase.PPoc} \]

‘Someone is chasing me.’ (I don’t know who.)

An unspecified prefix cannot be used in this context. The verb ayiiyáá’ ‘he ate’, with unspecified-object prefix ‘a-’, would be unacceptable.

4.3.4. Navajo indefinite pro forms ‘someone’, ‘something’

The equivalents of English ‘someone’ and ‘something’ can be expressed either with unspecified prefixes, as above, or with independent indefinite pro forms. The independent pro forms establish a referent, which is then referred to in the verb by the basic third-person pronominal prefixes: zero, yi- or bi-.

(54) Navajo indefinite subject (Dolly Soulé, speaker p.c.)

\[ \text{Haishii shi-noolch66l.} \]

\[ \text{haishii shi-n-oo-l-ch66l} \]

\[ \text{someone 1.SG.OBJECT-TH-3.SUJECT.PROG-TRANSITIVISER-chase.PROG} \]

\[ \text{someone he or she is chasing me} \]

‘Someone is chasing me.’ (I don’t know who.)
Compare: Shinoolchêét.
  shi-n-oo-l-chêét
  1.SG.OBJECT-TH-3.SUBJECT.PROG-TRANSITIVISER-chase.PROG
  ‘He or she is chasing me.’
  Not: ‘Someone is chasing me.’

(55) Navajo indefinite object construction (Young, Morgan and Midgette 1992: 250)
Ha’át’íshjí neil’in.
bha’át’ii=shjí na-i-0-l-’in
  DUR.IMPRF
something
  he is barking at it
  ‘He’s barking at something.’

Compare: Neil’in.
  na-i-0-l-’in
  DUR.IMPRF
  ‘He’s barking at it.’
  Not: ‘He is barking at something.’

It is significant that even though Navajo contains special prefixes for unspecified subjects and objects, they are not used when an independent word for someone or something establishes a hypothetical referent. The regular definite referential third-person pronominal prefixes must be used, picking up the reference. The pronominal prefixes need not match the independent nominals in referentiality or definiteness.

4.3.5. Non-specific mentions
The same constructions are used for non-specific mentions. A hypothetical referent is established by an independent pro form. This referent, which exists within the world of the sentence, is picked up by the pronominal prefix.
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(56) Navajo non-specific mention (Young, Morgan and Midgette 1992: 931)

Ha'át'íhida  bik'íníyago
ha'át'íhí = da  bi-k'i-ni-ya = go
something  = INDEFINITE  3.OBLIATIVE.OBJ-on-TRM-2.SG.
            SUBJ-go.PRF = SUB

something  if you come on it

hadidi'l-wosh.
ha-di-dií-l-wosh.
out-auditorily-INCEPTIVE.2.SG.SUBL-DTRANSITIVISER-YELL.FUTURE
‘Holler if you find anything!’

In English, pronominal reference can also be made to referents established within the world of the sentence, even if there is no corresponding referent in the real world, as in Evans’ If you find a dodo, bring it home as a pet for my daughter (1999: 257).

4.3.6. Negated indefinites in Navajo

Negative indefinite constructions can be formed by negating a clause containing an unspecified subject or unspecified object prefix.

(57) Navajo negated indefinite (Goossen 1995: 298)

T'áádoó ayááni  da.
t'áádoó  'a-0-yán = i  da
without  UNSPECIFIED OBJECT-3.SUBL-EAT.IMPRF =
            NOMINALISER  NEG
without  his eating something  not
‘He isn’t eating anything.’

Alternatively, a hypothetical referent can be established with a lexical nominal and referred to with a basic third-person pronominal prefix. The entity may not exist in the real world, but reference has been established within the world of the sentence.

(58) Navajo absence (Dolly Soulé, speaker p.c.)

Shichidi  ádin.
shi-chidi  'á-0-din
1.POSSSESSOR-car away.out.of.sight-3.SUBL-HE-BE.NEUTER
my car  it is non-existent
‘I don’t have a car.’

4.3.7. Navajo content questions

Navajo content questions also show patterns similar to those in Yup'ik. A content question presupposes the existence of the entity to be identified. The speaker who asks Who hid it? is presupposing that there is someone who hid it. In Navajo, as in Yup'ik, a hypothetical referent is established with an independent question word, then referred to by a pronominal prefix in the verb. Again it is significant that the pronominal prefix does not simply match the independent question word in definiteness. The verbs of content questions must contain a basic third-person pronominal prefix referring to the questioned participant, rather than an unspecified prefix.

(59) Navajo content questions (Dolly Soulé, speaker)

a. Háii lá neidis'î'la?
   háii lá na-yi-di-s-0-î'î' = la
   who she hid it
   'Who hid it?'

b. Ha'át'îi lá ndanohlchê?
   ha'át'îi lá ni-da-0-n-oh-î-ché
   what TH-DISTR-3.OBJECT-2.PL.SBJ-TRANSITIVE-chase.CONT
   what you all are chasing it
   'What are you guys chasing?'

Yes-no questions can contain unspecified prefixes; they do not necessarily involve a hypothetical referent whose existence is presupposed and established by a question word.

(60) Navajo yes–no and content questions (Dolly Soulé, speaker p.c.)

a. Êiyà'â'ash?
   'êiyà'â' = ash
   UNSPECIFIED.OBJECT-COMPLETIVE-eat.PRF = INTERROGATIVE
   he ate something?
   'Did he eat?'

b. Ha'át'îi là yiyiyà'â'?
   ha'át'îi là yi-yi-yà'
   what 3.OBJERATIVE.OBJECT-COMPLETIVE-eat.PRF
   what he ate it
   'What did he eat?'
4.3.8. Navajo ambient prefixes

The areal prefixes of the basic form hw-, which invoke general circumstances but not specific referents, cannot co-occur with coreferential nominals. If a lexical nominal is present to establish reference, the pronominal prefix must be the basic third-person referential zero, bi- or yi-.

(61) Navajo Areal prefix (Dolly Soulé, speaker p.c.)

a. Hodilhil.
   ho-di-l-hil
   AREAL-SUBJECT-color-physical.characteristic-be.dark.NEUTER
   ‘It’s dark (out).’

b. Tónteel nizhónigo
   tó-nteel ni-0-zhóni = go
   water-broad visually-3.SUBJECT-nice = ADVERBIALISER
   ocean beautifully
   ‘The ocean is beautifully dilhil.
   di-0-l-hil
   color-3.SUBJECT-physical.characteristic-be.dark.NEUTER
   it is dark colored
   dark (in color).’

4.3.9. Navajo weather terms

Finally, we saw that in Yup’ik, weather expressions contain regular third-person pronominal suffixes, comparable to the it of English It is raining and the es of German Es regnet. Some Navajo weather terms show the same pattern, with basic third-person subject prefixes. Others show areal prefixes.

(62) Navajo basic third-person weather constructions (Dolly Soulé, speaker p.c.)

a. Yidzaas.
   yi-0-dzaas
   PROTHEtic-3.SUBJECT-snow.IMPRF
   ‘It is snowing.’
(62) b. (Tó) naaltin.
water na-0-l-tin
*water downward-3.SUBJECT-CLASSIFIER-fall.IMPRF
‘It is raining.’
c. Nló naaltin.
nló na-0-l-tin
*hail downward-3.SUBJECT-CLASSIFIER-fall.IMPRF
‘It is hailing.’

(63) Navajo Areal weather constructions (Young, Morgan and Midgette 1992)
a. Hatin.
   ha-tin
   AREAL.SUBJECT-freeze.IMPRF
   ‘It is freezing (out).’
   Compare: Yitin.
   yi-0-tin
   PROTHETIC-3.SUBJECT-freeze.IMPRF
   ‘It (an object) is freezing.’
b. Honeezk'ázi.
   ho-nee-s-k'ázi
   AREAL.SUBJECT-TH-DURATIVE.SEQUENTIAL-be.cool.NEUTER
   ‘It is cool (the weather).’
   Compare: Sik'ázi.
   si-0-k'ázi
   DURATIVE.SEQUEL-3.SUBJECT-be.cool.NEUTER
   ‘It is cool.’ (iron, water, a corpse)

4. CONCLUSION

The obligatoriness of pronominal affixes does not entail a lack of referentiality or definiteness after all. In the languages examined here, Yup'ik and Navajo, pronominal affixes are used only referentially, except in weather expressions. In terms of their referentiality and definiteness, they are just like the independent pronouns of languages like English and German. They contrast with the redundant subject-agreement endings on verbs in those
languages because, unlike them, they are capable of invoking referents on their own within clauses.

In clauses with no independent lexical nominal to establish reference, pronominal affixes do not have open reference. They are used only when a referent has been established in one way or another. Basic third-person pronominal affixes can be interpreted only as 'he', 'she', 'they', 'it', 'him', 'her', 'them', never 'someone', 'something', 'people' or 'things' (unless the pronoun has acquired a conventionalised generic use, like English they.) Reference is established in languages with pronominal affixes just as it is in English and German: by the extralinguistic context, by the speech event itself (for first or second person) and by lexical mention in previous discourse. Yup'ik and Navajo differ from English and German simply in the absence of a restriction: pronominal reference can be established within the same clause as well. This property may be related to the fact that in languages with pronominal affixes, each verb constitutes a complete minimal clause in itself, the skeleton or nucleus of the clause. It has long been known that in languages like English and German, independent pronouns need not match their lexical antecedents in referentiality or definiteness, though they may match in certain feature values such as number or gender. The same principle governs pronominal affixes and their antecedents. This fact is especially easy to see in Navajo, where speakers have choices between referential pronominal prefixes and unspecified subject or object prefixes. If a clause contains an independent lexical nominal that establishes reference, a definite referential pronominal prefix must be used, even if the independent word that establishes the reference is non-referential or indefinite.

Indefinite and non-referential mentions are accomplished through other strategies. Navajo contains a distinct set of prefixes for unspecified participants. Otherwise for indefinites like someone or something, for negated indefinites like no one or nothing, and for the targets of content questions like who and what, Yup’ik and Navajo exploit the same strategy. A hypothetical referent is established with an independent indefinite pro form (someone, something), and that referent is evoked with a pronominal affix.

Yup’ik, Navajo and other languages with pronominal affixes
contain alternative constructions for non-referential expressions, though the alternatives vary across the languages (Mithun 2002). Yup’ik contains extensive denominal verb derivation, for example. Navajo contains an impressive elaboration of prefix categories, distinguishing referential third persons, generics, indefinites and ambient situations. Both Yup’ik and Navajo make extensive use of detransitivisation, so that pronominal affixes do not represent non-referential entities.

The data discussed here are quite similar to the material cited by Evans (1999) from Bininj Gun-wok, Warray, Mangarayi, Lummi, Georgian, Aztec, Cayuga and Greenlandic (another Eskimoan language). In those languages, as in Yup’ik and Navajo, the reference of pronominal affixes can be established by extralinguistic or linguistic context, outside or inside of the clause. The examples cited by Evans from those languages generally contain overt lexical items that establish the reference of the pronominal affixes: child, man, boy, wife, people, women, seal, dog, door, flowers, cigarette, marking, someone, something, some, another. In those languages, just as in Yup’ik and Navajo, all pronominal affixes are referential and definite. (Some are of course like English in the conventional use of particular referential pronouns as generics.) As in Yup’ik and Navajo, non-referential mentions are made by alternative constructions. The inventories of alternatives, and their relative frequencies of use, vary from language to language, but they are generally quite similar to those seen here: detransitivisation, noun incorporation and verbal derivation.

The referentiality of pronominal affixes has been of interest to syntacticians concerned with the identification of the core arguments of clauses. On one view, it is the lexical nominals that are the true arguments. Clauses without lexical nominals are assumed to have dropped them. On another view, it is the pronominal affixes that are the arguments, and coreferential nominals are simply adjuncts with no syntactic status. The material seen here indicates that pronominal affixes certainly function as core arguments, but their presence does not entail a specific syntactic status on the part of coreferential nominals in the same clause. Independent nominals in Yup’ik carry explicit inflectional marking of their syntactic roles, with ergative and absolutive case endings on core arguments.
Nominals in Navajo, by contrast, carry no case marking, but there is a detectable basic constituent order that could be associated with subject and object roles. In languages of the Iroquoian family, nominals carry no case marking and constituent order has no relation to syntactic role. Since they evoke the same entity, lexical nominals and coreferential pronominal affixes may simply share that status, and languages may differ in the extent to which the nominals are integrated formally into the clause. This is in keeping with the unification approach advocated by Evans, in which information about participants is built up over the course of speech from multiple referring expressions. The information can come from independent nominals, incorporated nouns, independent pronouns, pronominal affixes, redundant grammatical agreement and of course inference.

It is perhaps unfortunate that the study of agreement is rooted historically in work on languages like English and German. Use of the term ‘agreement markers’ for pronominal affixes may have led to an assumption that they necessarily agree in all features with the items that establish their reference, including referentiality and definiteness. Agreement is of course not the primary function of pronominal affixes; their role is to evoke referents. Redundant grammatical agreement markers such as the subject endings of English and German verbs, are actually quite rare cross-linguistically. In her sample of 272 languages, Siewierska (1999: 238) found that just two, well under 1%, contain grammatical agreement markers of this type.

Individual pronominal affix systems vary across languages in the categories they distinguish and the ways they are used. In the end, however, pronominal affixes function referentially much like independent pronouns.

Department of Linguistics
University of California
Santa Barbara, California
USA 93106
Email: mithun@linguistics.ucsb.edu
ABBREVIATIONS

| 1 | FIRST PERSON | NEG | NEGATIVE |
| 2 | SECOND PERSON | OBJ | OBJECT |
| 3 | THIRD PERSON | p.c. | personal communication |
| ABS | ABSOLUTIVE CASE | PL | PLURAL |
| ADV | ADVERBIAL | PRR | PERFECTIVE |
| CONT | CONTINUATIVE | PROG | PROGRESSIVE |
| DEM | DEMONSTRATIVE | Q | INTERROGATIVE |
| DISTR | DISTRIBUTIVE | R | COREFERENTIAL |
| DU | DUAL | SEQ | SEQUEL |
| DUB | DUBITATIVE | SG | SINGULAR |
| DUR | DURATIVE | SUB | SUBORDINATIVE |
| FEM | FEMININE | SUBJ | SUBJECT |
| HAB | HABITUAL | UNSPEC | UNSPECIFIED |
| IMPRF | IMPERFECTIVE | TH | THEMATIC |
| INDIK | INDICATIVE MOOD | TR | TRANSITIVE |
| INTR | INTRANSITIVE | TRM | TERMINATIVE |
| MASC | MASULINE | UNSPEC | UNSPECIFIED |

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