The 'possessed noun suffix' and "possession"
in two Northern Athabaskan languages

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1. Introduction[1]

• Dëne Sųłıné [Chipewyan] and Tłįchǫ Yatıì [Dogrib] are neighbouring languages in the Athabaskan family spoken in large areas of the Northwest Territories of Canada and northern areas of the provinces of Alberta, Saskatchewan, and Manitoba[2]

1.1. The 'possessed noun suffix' (PNS)
• Possessive structures in general:
  Possessor (N or/and pronom. affix) – Possessed N – **PNS**

(1)   *Dëne Sųłıné*   *Tłįchǫ Yatıì*
      *sejıs**é***   'my mitten'   *wetǫ**ǫ̀***   'his/her pail'
      se-jıs-**é**   we-tǫ-**ǫ̀**
      1sg-mitten-PNS   3-pail-PNS

• Dëne Sųłıné PNS: default vowel with marked tone
  Tłįchǫ Ýatıì PNS: extra mora/ copy of preceding vowel with marked tone

1.2. Variation in suffixation
• in addition to the full vocalic PNS above, there is a tonal suffix (marked tone only), and other nouns are possessed without suffix:

(2)   *Dëne Sųłıné*   *Tłįchǫ Yatıì*
a.   *neké* 'your shoes'   *wetì* 'its lake'   **marked tone only**
          cf. *ke* 'shoe'   cf. *ti* 'water, lake'

b.   *sųtsų* 'my nose'   *gok'oh* 'someone's neck'   **no suffix**
          cf. *sų-* '1sg'   cf. *go-* 'unspecified human'

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[2] Data are from fieldwork in Behchokǫ̀, NWT (Tłįchǫ Yatıì) and Cold Lake, Alberta (Dëne Sųłıné), as well as from dictionaries (DDBE 1996, E&E 1998, Biscaye 2002). Examples are written in the practical orthographies. Vowels with a cedille are nasal, accents represent tones, C' = glottalized C, voiced obstruent symbols represent plain voiceless obstruents, voiceless obstruent symbols represent voiceless aspirated obstruents. *j* = /dʒ/, *ddh* = /dð/, *tth* = /tθ/, *sh* = /ʃ/, *zh* = /ʒ/, *gh* = /ɣ/, *ë* = /ə/.

1.3. Goals
➢ catalogue the distribution & variation of the PNS in Dëne Sųłıné and Tłı̨chǫ Yatıì
➢ correlate the distribution & variation with different structures for alienable and inalienable possession
➢ show that the PNS marks not only possession, but generally serves to syntactically license a nominal
➢ show that form & occurrence of the PNS are also partially lexically determined

1.4 Outline
2. The PNS and (in)alienability
3. Analysis of (in) alienable possession
4. Other envirnonments for the PNS/*n*P
5. Compounds and the PNS
6. Implications and open questions

2. The PNS and (in)alienability

• Athabaskan languages all distinguish two categories of nouns in terms of whether a possessor must be expressed or not. The nouns for which a possesor must be expressed, termed "inalienably possessed", typically refer to parts of living things, kinship terms, and the like

• in general, alienable nouns show the full vocalic PNS, while inalienable nouns vary between vocalic suffix, tonal suffix, and no suffix

2.1 Alienable possession
• alienable nouns do not require a possessor
• most alienably possessed nouns show the **full vocalic PNS**:

(3) *Dëne Sųłıné*

   a. sejısé
     se-jis-**é**
     1sg-mitten-PNS
     'my mitten'

   b. bexełdhë́dhé
     be-xełdhéth-**é**
     3-packsack-PNS
     'his packsack'

   c. beyúé
     be-yú-**é**
     3-clothing-PNS
     'his/her clothing'

   d. setsąbaé
     se-tsąba-**é**
     1sg-money'PNS
     'my money'

(4) *Tłı̨chǫ Yatıì*

   a. sets'aà
     se-ts'ah-**à**
     1sg-cap-PNS
     'my cap'

   b. wetǫ̀
     we-tǫ-**ǫ̀**
     3-pail-PNS
     'his/her pail'

   c. nelı̨ì
     ne-tłı̨-**ì**
     2sg-dog-PNS
     'your dog'

   d. gosǫ̀ǫmbaà
     go-sǫ̀ǫmba-**à**
     1pl-money-PNS
     'our money'

• the relation between the two nouns does not have to be strict possession:

(5) *Dëne Sųłıné*

  a. sedzın**é**
   se-dzı̨-**é**
   1sg-day-PNS
   'my birthday'

  b. berıhtł'ís**é**
   be-Ɂerıhtł'ís-**é**
   3-paper-PNS
   'his/her photograph; his/her debt'

  c. sedáda**é**
   se-dáda-**é**
   1sg-sickness-PNS
   'my sickness'

  d. nuheyatı**é**
   nuhe-yatı-**é**
   1/2pl-language-PNS
   'our language'

(6) *Tłįchǫ Yatıì*

  a. gonàowo**ò**
   go-nàowo-**ò**
   1pl-culture/law-PNS
   'our culture, our law'

  b. gıla**à**
   gı-la-**à**
   3pl-work-PNS
   'their work'

• some alienable nouns show a **tonal suffix** only: [H = high tone; L = low tone]

(7) *Dëne Sųłıné*

  a. neké
   ne-ke-**H**
   2sg-shoe(s)-**H**
   'your shoes'

(8) *Tłįchǫ Yatıì*

  a. sekè
   se-ke-**L**
   1sg-shoe-**L**
   'my shoe'

  b. wetì
   we-tı-**L**
   3-lake-**L**
   'its lake'

• we are not, to date, aware of clear examples of alienably possessed **nouns without suffix** in the two languages
• as the Tłįchǫ Yatıì PNS takes the form of a mora, and there are weight restrictions on syllables in the language (Marinakis 2004), phonology can obscure morphology at times
• similarly, in DS, the presence of a PNS cannot be determined in nouns already ending in *-é*, e.g., *ts'éré* 'blanket' – *sets'éré* 'my blanket', *layúé* 'tools' – *belayúé* 'his/her tools'
• this topic requires further research

2.2. Inalienable possession

• "inalienably possessed" nouns require a possessor
• the possessor can be generic, e.g. *dëne* 'person' (Dëne Sųłıné), 'unspecified' prefix *ʔe-* (Dëne Sųłıné, Tłįchǫ Yatıì) or 'unspecified human' prefix *go-* (Tłįchǫ Yatıì)
• the inalienably possessed nouns refer to body parts and products of living things, intimate possessions such as names or trails, and kinship or other personal relationships
• the noun, when possessed, may be suffixed or not; there are three choices, the full vocalic PNS, the tonal PNS, or no marking; which option is chosen is unpredictable (see Appendix for similar variation in other Athapaskan languages)
• the underlying, non-possessed form of an inalienable noun can often be determined from compounds

• **Full, vocalic PNS:**   [noun is underlined, suffix is bold]

 (9) *Dëne Sųłıné*   *compound showing non-possessed noun*
   a. dëníchën**é**   '(person's) arm'   (E&E 2)
   b. dënegán**é**   '(person's) arm'   cf. dënegánlá 'shoulderblade'   (Biscaye 6)
   c. dënetth'ú**é**   '(person's) breast'   cf. dënetth'utthílá 'nipple'   (Biscaye 6)
   d. ʔeghéz**é**   '(someone's) egg'   (E&E 23, Biscaye 28)
   e. ʔedzı**é**   '(someone's) heart'   cf. sedzereltth'ër 'I got scared'   (E&E 32)

(10) *Tłįchǫ Yatıì*
   a. godze**è**   '(someone's) heart'   cf. godzehtł'ıì 'vein'
   b. goda**à**   '(someone's) eye'   cf. gonawò 'eyelid'
   c. godza**à**   '(someone's) leg'   cf. godzalıì 'calf of the leg'
   d. łıwet'**ıì**   'fish scales' (lit., fish's scales)
   e. godo**ò**   '(someone's) blood'

• **Tonal suffix:**

(11) *Dëne Sųłıné*
   a. dënel**á**   '(person's) hand'   cf. dënelagór 'knuckles'   (Biscaye 6)
   b. dënek**é**   '(person's) foot'   cf. dënekełtálé 'heel'   (Biscaye 6)
   c. dënedz**í**   '(person's) heart'   cf. dënedzıdıdhé 'lung'   (Biscaye 7)

(12) *Tłįchǫ Yatıì*
   a. ʔegh**à**   '(someone's) hair, fur' cf. ʔeghachįì 'stubble'
   b. gol**à**   '(someone's) hand'   cf. golakw'ǫ̀ 'finger'
   c. gok**è**   '(someone's) foot'   cf. gokegǫ̀ 'toenail'
   d. gogh**òò**   '(someone's) tooth'   cf. goghohkwǫ̀ 'gums'
   e. gogǫ̀**ǫ̀**   '(someone's) arm'   cf. gogǫ̀ǫt'à 'shoulderblade'

• **No suffix:**

(13) *Dëne Sųłıné*
   a. dëne<u>nıs</u>   '(person's) waist'   (Biscaye 6)
   b. dëne<u>tth'ı</u>   '(person's) body'   (Biscaye 6)
   c. dëne<u>chı</u>   '(person's) nostrils'   (Biscaye 5)
   d. dëne<u>la</u>   '(person's) cousin'   (Biscaye 2)
   e. se<u>tsų</u>   'my mother-in-law, aunt'

(14) *Tłįchǫ Yatìı*
   a. go<u>nıı</u>   '(someone's) waist'
   b. go<u>jǫ</u>   '(someone's) front of the body'
   c. go<u>k'oh</u>   '(someone's) neck'   cf. <u>k'oh</u> 'clouds', nįhts'ı<u>k'oò</u> 'windclouds'
   d. go<u>ʔeh</u>   '(someone's) uncle'   cf. <u>ʔeh</u> 'jacket', go<u>ʔeè</u> 'our jacket'
   e. go<u>mǫ</u>   '(someone's) mother'

3. Analysis of (in)alienable possession

3.1. Summary of data

(15)

	Inalienable possession:	*Alienable possession:*
syntax	- possessor obligatory	- possessor not obligatory
semantics	- small set of semantic relations N_1 – N_2 - N_2 not interpretable, "incomplete" without N_1	- N_1 can stand in any semantic relation to N_2 - N_2 interpretable by itself, "complete"
morphology	- vocalic PNS, tonal suffix, no suffix - unpredictable	- usually vocalic PNS - largely predictable

3.2. Proposal (largely due to Wilhelm and Saxon 2007)

• Alienable possession:
  - N_2 has no inherent argument position
  - N_1 is no argument, does not merge in N_2P
  - to syntactically license N_1, an additional, functional layer of structure is needed
  - PNS is the overt manifestation of this functional projection
  - we propose this is *n*P, in analogy with *v*P or VoiceP in the verbal domain

(16)

```
                         nP
                        /  \
                       /    \  n'
          al. poss.   /     / \
                   N₂P     /   \
                    |     n     
                   N₂  (vocalic)
```

nP

al. poss.   n'

N$_2$P   n
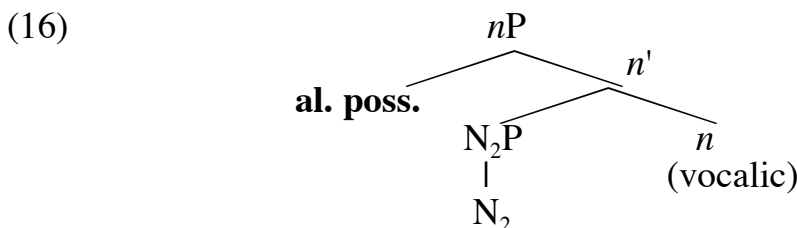
N$_2$ (vocalic)

- Inalienable possession:
  - N_2 has an inherent argument position which is filled by N_1
  - as argument, N_1 merges within N_2P
  - possessive morphology is lexically specified (cf. also Appendix):
    N_2 selects type of *n* head: vocalic, tonal, Ø
  - N_1 moves to/through Spec, *n*P, in order to become syntactically active

(17)

```
                nP
               /  \
              /    n'
             /    /  \
          N₂P    /    n
          / \   /
         /   \ (vocalic/tonal/Ø)
   inal. poss.  N₂
```
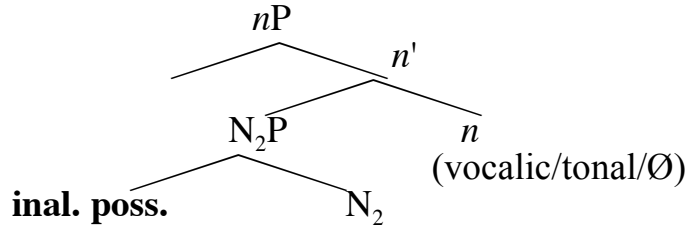
➢ PNS/*n*P can occur due to lexical or syntactic requirements
➢ the function of PNS/*n*P is the syntactic licensing of a non-head constituent of a nominal expression
➢ **predictions:**
  (i) since inalienability is a lexical property of individual nouns, we expect variation across languages and dialects which nouns are inalienable
  (ii) since inalienable and alienable possessors are merged in different positions, we expect co-occurrence of the two, i.e., double possession

3.3. Prediction (i): Lexical determination of inalienability

• we indeed find slight differences between Dëne Sųłıné and Tłįchǫ Yatıì (and also between other languages of the family) with respect to which nouns are inalienable
• in (18) below, nouns are given in citation form as found in the respective dictionaries; a possessor (bolded) indicates inalienability

(18)

	Dëne Sųłıné (E&E)	*Tłįchǫ Yatıì* (DDBE)	
blood	dël	**go**doò	
bone	tth'ën	**go**kw'ǫ̀ǫ̀	cf. *Tłįchǫ Yatıì* kw'ǫ̀ǫ̀ 'glacier'
scab	łur	**go**lıì	
dandruff	tthítsı̨́	**go**kwìlè	
poop	ʔetsáné	tsǫ̀	
bladder	lezdhéth	elııwò	cf. *Dëne Sųłıné*
eyelid	nadhédh	**go**nawò	ʔedhédh 'hide, skin'
wart	shı̨́th	**go**wǫ̀ǫ̀	
name	**dëne** hı̨zí	**go**ı̨zì	
friend	**dëne**ts'énı	aàgı̨a̧	
sand	thay	ewaà	

• the variation occurs with nouns which denote non-core instances of body parts or kinship relations (cf. Thompson 1996)
• the inalienability of *ewaà* 'sand' in Tłįchǫ Yatıì is surprising and requires further research

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3.4. Prediction (ii): Double possession

• we find double possession in Tłįchǫ Yatıì (and in some other Athapaskan languages, e.g. Koyukon (Thompson 1996))

• double possession occurs in Tłįchǫ Yatıì when someone possesses the inalienable possession of a creature, such as a caribou head; in the examples the prefix indicating the alienable possessor is underlined and the 'unspecified' prefix **ʔe**- indicating the animal (inalienable possessor) is shown in bold

• note that in cases of double possession, the lower, inalienable possessor is a nonreferential element; we attribute this to its inability to move into nP and become syntactically active

(19)   a.   <u>se</u>**ʔe**wò   'my [animal] hide'   *Tłįchǫ Yatıì*
            1sg-Unsp-hide

       b.   <u>ne</u>**ʔe**kwì   'your [animal] head'
            2s-Unsp-head

(20)

                          nP
              _____/_____
             al. poss. n'
             se- '1sg'   _____/_____
                               NP n
                          ____/____   Ø
                       inal. poss.   N
                       ʔe- 'unsp.'   *wò*
                                             'hide'
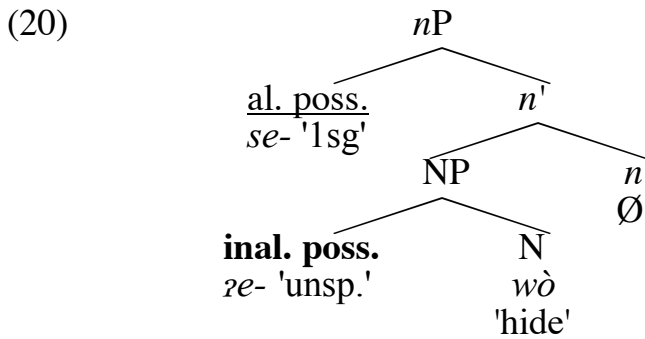
4. Other environments for PNS/nP

• we predict that other nonhead constituents of nominal expressions are also merged in [Spec, nP] in order to be syntactically licensed

4.1. Numeral – unit noun combinations (cf. Saxon & Wilhelm 2007)

 • nouns denoting a unit of measurement, when preceded by a numeral, show the vocalic PNS

• this contrasts with other numeral – noun combinations, in which the noun is not possessed and the numeral must follow the noun (Tłįchǫ Yatıì) or may follow the noun (Dëne Sųłıné)

(21)   *Tłįchǫ Yatıì*: Num – N$_{Poss}$
       a.   nàke   dzę**è**   'two days'
            two   day.PNS
       b.   taı   to**ò**   'three nights'
            three   night.PNS
       c.   dı̨   sadze**è**   'four hours'
            four   clock/hour
       d.   ı̨łè   lıbò**ò**   'one cup' [of flour, tea, etc]
            one   cup.PNS

(22) *Dëne Sųłıné*: Num – N_Poss
    a. ʔı̨łá   dzın**é**   'one day'
        one   day.PNS
    b. náke   nĕn**é**   'two years'
        two   year.PNS

(23)

```
                           nP
                              \
                               n'
        numeral
          nàke      N₂P              n
          'two'     dzę          (vocalic)
                    'day'
```
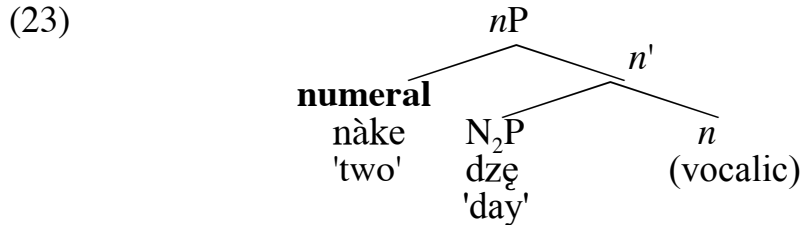
4.2. "Characteristic" relative clauses

• ordinary relative clauses in Dëne Sųłıné and Tłı̨cho Yatıì follow the head noun, if there is a head external to the clause (see Saxon 2000 on relative clauses in Tłı̨cho Yatıì)
• in relative clauses which serve to characterize an entity, the relative clause precedes the head noun and the relative clause's verb is nominalized
• the head noun, to the best of our understanding, is always suffixed with the vocalic PNS

(24)   *Dëne Sųłıné*
    a. [tsádhéth   kanı̨dhënı] dën**é**   (E&E 70)
          beaver.fur   want.Nom   person.PNS
        'trapper'
    b. [tsą̨ba   hoghelehı]   dën**é**   (E&E 66)
          money collect pl O.Nom person.PNS
        'tax collector'
    c. [nálzéhı]   dën**é**   (E&E 34)
          hunt.Nom   person.PNS
        'hunter'
    d. [háʔonełtenı] honı**é**   (E&E 48)
          teach.Nom   story.PNS
        'parable' (lit. 'story that teaches')

(25)   *Tłı̨chǫ Yatıì*
    a. [behchı̨ı̨̀   k'èdıı   ]   dǫ**ǫ̀**   (DCSB 7)
          vehicle   drive.Nom   person.PNS
        'driver' (lit. 'person who drives vehicles')
    b. [edets'egǫǫ]   dzę**è**   (DCSB 24)
          UH.fast.Nom   day.PNS
        'day of fasting'
    c. [wet'à   gokwìghà   k'enaʑetsee   ]   datłe**è**   (DCSB 113)
          3.with   UH.hair   be washed.Nom   soap.PNS
        'shampoo' (lit. 'soap with which one's hair is washed')

d. [tso   dèk'ǫ̀ǫ   ]   satsǫ̀**ǫ̀**   (DCSB 104)
   wood   burn.Nom   stove.PNS
   'wood-burning stove'

(26)   *n*P
                                          /\
                                         /   *n*'
                                        /   /\
               char. clause   /   /   \
               tso dèk'ǫ̀ǫ   N₂P   *n*
               wood burn.Nom   satsǫ̀   (vocalic)
                                   'stove'
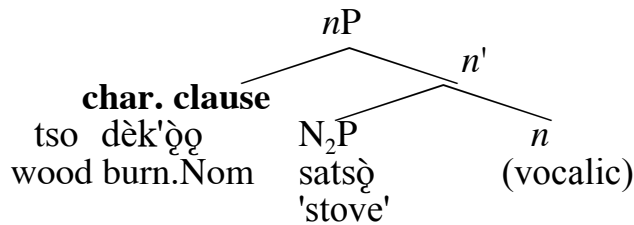
5. Compounds and the PNS

• compounding is extremely productive in Athabaskan languages, from our observations; that is certainly true for the two languages under discussion
• many compounds involve possessive morphology, both the vocalic PNS or the tonal suffix; other compounds show no suffixation
• whether and what kind of suffixation occurs is unpredictable (cf. also Appendix)

(27) *cf. English compounds involving possessive morphology:*

| baby's-breath | lady's-slipper | monkshood | Heart's Content [placename] |
| neat's-foot oil | fool's gold | foolscap | Mary's Cove [placename] |

5.1. Compounds with PNS

(28) *Dëne Sųłıné*   (data from fieldnotes and E&E)

a. *alienable* head noun (head noun and PNS in bold)

jíe**tué**	'wine'	jíe 'berries' + tu 'water' + PNS
Łuechogh**tué**	'Cold Lake'	łuechogh 'big fish' + tu 'water/lake' + PNS
beschogh **dëné**	'American'	beschogh 'bıg knıfe' + dëne 'person + PNS
nóneshe **dëné**	'farmer'	nóneshe 'vegetables' + dëne 'person' + PNS
k'es**lézé**	'ashes'	k'es 'tree/poplar' + łés 'dust' + PNS
ganı**dıé**	'spruce hen'	ganı 'pıne' + dı 'chıcken, ptarmıgan' + PNS
dení**jíé**	'mooseberry'	deníe 'moose' + jíe 'berry' + PNS
tu**łesé**	'coal oil'	tu 'water' + tłes 'lard, oıl' + PNS
łįchogh **tł'oláé**	'oats'	łįchogh 'horse' + tł'olá 'graın' + PNS
jĕth **tł'ulé**	'fish line'	jĕth 'hook' & tł'ule 'rope' + PNS
sekuıtł'a**télé**	'diaper'	sekuı-tł'a 'chıld-bum' + tél 'blanket, coverıng' + PNS
la**yúé**	'tools'	-la 'hand' + yú 'clothıng, equıpment' + PNS

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b. *inalienable* head noun (head noun and PNS in bold)

tł'o**lá**	'grain'	tł'ogh 'grass' + -la 'tip' + tonal suffix
ʔejëre**tth'úé**	'milk'	ʔejëre 'cow' + -tth'ú 'breast' + PNS
ʔedhée**chën̈é**	'stretcher, frame for scraping hides'	ʔedhédh 'hide' + -chën 'arm, wooden' + PNS
ʔerıhtł'ís**chën̈é**	'pencil, pen'	ʔerıhtł'ís 'paper' + -chën 'arm, wooden' +PNS

(29) *Tłı̨chǫ Yatıì*

a. *alienable* head noun (head noun and PNS in bold)

eezhıı**k'oò**	'thunder clouds'	eezhıı 'thunder' +k'oh 'cloud' + PNS
deh**tì**	'lake in the flow of a river'	deh 'river' + tı 'lake' + PNS
cheko **ǫhdaà**	'adult'	cheko 'young person' + ǫhdaa 'elder' + PNS
Ezǫdzę̀ę̀ **Zaà**	'November'	Ezǫdzę̀ę̀ 'All Saint's Day' + sa 'month' + PNS
bebìa **daèhteè**	'crib'	bebìa 'baby' + daèhte 'bed' + PNS
ıt'ǫ̀**gòò**	'caterpillar'	ıt'ǫ̀ 'leaf' + gòo 'worm' + PNS
tı**tǫò**	'water bucket'	tı 'water + tǫ 'container' + PNS
kaobo**kè**	'cowboy boots'	kaobo 'cowboy' + ke 'shoe' + PNS
chǫh**ʔeè**	'raincoat'	chǫ 'rain' + ʔeh 'clothing' + PNS
tłeh**tł'ıì**	'starter cord on engine'	tłeh 'oil' + tł'ıh 'rope' + PNS

b. *inalienable* head noun (head noun and PNS in bold)

ʔah**kw'ǫò̀**	'snowshoe frame'	ʔah 'snowshoe' + -kw'ǫò̀ 'bone'
tłı̨cho**dıì**	'oatmeal'	tłı̨cho 'horse' + -dıì 'feed (n)'

5.2. Compounds without PNS

(30) *Dëne Sųłıné*   (data from fieldnotes and E&E)

a. *alienable* head noun (head noun in bold)

tu**tılı**	'bottle'	tu 'water' + tılı 'container'
tthe**tılı**	'crock, jug'	tthe 'stone' + tılı 'container'
chedh **tılı**	'kettle'	chedh 'duck' + tılı 'container'
dechën **bes**	'hand saw'	dechën 'wood' + bes 'knıfe'
chą**ʔıh**	'raincoat'	chą 'raın' + 'ʔıh' jacket'
łes**tth'áy**	'chamberpot'	łes 'urıne' + tth'áy 'dısh'
dechën**ke**	'boots'	dechën 'wood' + ke 'shoe' [formerly made of wood]
dzéh**ke**	'rubber shoes'	dzeh 'gum' + ke 'shoes'
tsątsą́ne **yú**	'armour'	tsątsą́ne 'metal' + yú 'clothıng'
dechën**tél**	'floor'	dechën 'wood' + tél 'blanket, coverıng'
ʔedzaghé **tł'uł**	'earring'	ʔedzaghé 'ear' + tł'ulı 'rope'

b. *inalienable* head noun (head noun in bold)

k'ásba **tthḗn**	'chicken (meat)'	k'ásba 'chɪcken' + -tthḗn 'meat, skɪn'
ʔejëre **tthḗn**	'beef'	ʔejëre 'cow' + -tthḗn 'meat, skɪn'
dënetł'á **tthḗn**	'buttocks'	dënetł'á 'person-bum' + -tthḗn 'meat, skɪn'
dlíe **nɪ**	'peanut'	dlíe 'squɪrrel' + -nɪ 'food'
dëne **nɪ**	'food'	dëne 'person' + -nɪ 'food'
na**dhédh**	'eyelid'	-na 'eye' + -dhédh 'hɪde, skɪn'

(31) *Tłįchǫ Yatìi*

a. *alienable* head noun (head noun in bold)

tłeh**tł'ıh**	'gasline'	tłeh 'oil' + tł'ıh 'rope'
tł'à**ʔeh**	'pants'	tł'à 'bottom' + ʔeh 'clothing'
lìbalà**ʔeh**	'parka'	lìbalà 'canvas' +ʔeh 'clothing'
dechį**ke**	'boots'	dechį 'wood' + ke 'shoe' [formerly made of wood]
satsǫ̀**ke**	'skates'	satsǫ̀ 'metal' + ke 'shoe'
ewòh**ke**	'hide slippers'	ewò 'hide' + ke 'shoe'
eja**tǫ**	'glass jar'	eja 'glass, window' + tǫ 'container'
łè**dzèh**	'clay'	łè 'flour/powder' + dzèh 'gum'

b. *inalienable* head noun (head noun in bold)

|		
dedìı**wò**	'moosehide'	dedìı 'moose' + -wò 'hide, covering'
kw'ıh**wò**	'mosquito net'	kw'ıh 'mosquito' + -wò 'hide, covering'
sǫǫ̀mba**wò**	'wallet'	sǫǫ̀mba 'money' + -wò 'hide, covering'
datįh**tł'à**	'eye of a needle'	datį 'needle' + tł'à 'bottom'
kw'à**chè**	'frying pan'	kw'à 'plate' + -chè 'tail'
nǫ̀da**zhaa**	'lynx kitten'	nǫ̀da 'lynx' + -zhaa 'child, offspring'
tłį**mǫ**	'mother dog'	tłį 'dog' + -mǫ 'mother'

5.3 Analysis of compounds

- compounds with PNS
  - we propose that compounds with PNS have the same structure as inalienably possessed nouns, i.e., N_1 merges in N_2P, and N_2 selects the type of *n*
  - N_1 does not move and stays syntactically inactive

(32)

```
              nP
             /  \
            /    n'
           /    /  \
        N₂P    /    n
        / \        (vocalic/tonal)
       /   \
     N₁     N₂
```
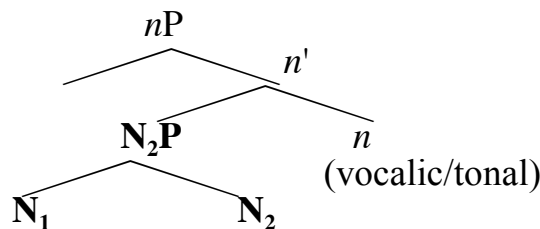
- compounds without PNS
  - we propose that compounds without PNS are a complex N
  - neither is N_1 an argument of N_2, nor is there an additional functional layer
  - since the two nouns merge below NP, N_2 does not select an *n* head
  - N_2 "loses its inalienability" through the compounding process

(33)

```
            NP
           /  \
              N
             / \
          N₁     N₂
```
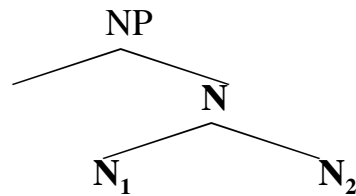
6. Implications and open questions

6.1. The "possessive" construction expresses more than just "possession"

• the possessive construction/PNS has the general function to license a nonhead constituent of a nominal expression
• the semantic relations between N_1 and N_2 are diverse and open-ended: "owns", "is associated with", "is characterized by", "measures X amount", etc.
• this can be formalized semantically as a general relation R (Williams 1980, Higginbotham 1983, Mühlbauer 2004, Saxon & Wilhelm 2007)
• R can be further specified by lexical semantics or by context (Higginbotham 1983, Szabolcsi 1994)

6.2. Inalienable possession is different
• a closer semantic and syntactic relation than alienable possession
• the inalienable possessor is an argument of N_2
• it orginates in a lower structural position than an alienable possessor (for us, within NP)
• in order to become syntactically active, it must move out of NP
• cf. Haiman (1995), Croft (1991), Chappell & McGregor (1996), Mühlbauer (2004), Barrie and Alboiu (2007) & references therein for the closer semantic & syntactic relation of inalienable possessor and possessed noun

6.3. Lexicon and syntax
• our analysis assumes three levels of nominal expressions at which N_1 and N_2 can merge: N, NP, *n*P (cf. Wiltschko, to appear, for similar ideas)
• N and NP: "lexical" domain; *n*P: syntactic domain
• possession cross-cuts these domains: PNS/*n* may occur due to lexical or syntactic requirements
• the effect, as observed, is that form and function do not correlate exactly

6.4. Other types of compounds
• we wish to extend our analysis to other types of compounds, e.g.:

• **Numeral + Noun:**

(34) a. *Dëne Sųłıné*
ʔįłáh**kóę̧**   'household'   ʔįłáh 'one, once' + kóę̧ 'house' (+PNS?)
ʔįłá**yúé**   'suit'   ʔįłá 'one' + yú 'clothıng' + PNS
Nákedzıné   'Tuesday'   náke 'two' + dzı̧ 'day' + PNS

b. *Tłı̨cho Yatıì*
ı̨łèh**kò̧**   'household'   ı̨łè 'one' + kò̧ 'house/town' (+PNS?)
Dı̨h**kò̧**   'Four Communities' [placename]   dı̨ 'four' + kò̧ 'house/town' (+PNS?)
Nàke**dzę̀ȩ̀**   'Tuesday'   nàke 'two' + dzę 'day' + PNS
Taı**dzę̀ȩ̀**   'Wednesday'   taı 'three' + dzę 'day' + PNS

• **Adverbial + Noun:**
- adverbials of time and space can combine with nouns to form compounds

(35) a. *Dëne Sųłıné*
the compounds shown here occur in a postpositional phrase
duhú**dzıné** k'e   'today'   duhú 'now' + dzı̧ 'day' + PNS +P
tthı**dzıné** k'e   'yesterday'   tth'ı 'also' + dzı̧ 'day' + PNS +P

b. *Tłı̨cho Yatıì*
Ịndàà **Kò̧**   'Fort Resolution' [placename]   ı̨ndàà 'far across' + kò̧ 'house/town'
ek'èdae**dzę̀ȩ̀**   'next day'   ek'èdae 'next' + dzę 'day' + PNS
ek'èten**ı̨hts'ıì**   'crosswind'   ek'ète 'crossed' + nı̨hts'ı 'wind' +PNS

• **Deverbal nominalization + Noun:**
- a very productive means for forming compound nouns in Dëne Sųłıné and Tłı̨cho Yatıì
- the nominalizing suffix that appears on the verb takes the form -*ı* in Dëne Sųłıné and in Tłı̨cho Yatıì is an additional vocalic mora on the host verb
- as we saw in section 4.2., a verb phrase of any size is eligible for nominalization
- to the best of our understanding, the head noun in this type of compound is always suffixed with the PNS

(36) *Dëne Sųłıné*
Łuets'eldélı **Dzıné**   'Friday'   fısh-eatıng + day + PNS
ʔełhelı **dëné**   'drummer'   drummıng + person + PNS

(37) *Tłı̨cho Yatıì*
nàzèe **dǫ̀**   'hunter'   huntıng + person + PNS
sınìyaehtıı **dǫ̀**   'judge'   judgıng + person + PNS
nàʔeedıı **dǫ̀**   'server'   distributing [food] + person + PNS
nats'eetee **kò̧**   'hotel, bedroom'   staying overnight + house (+PNS?)
eghàlats'eedaa **chee**   'employment cheque'   working + cheque + PNS
k'èhoèʔaa **dzę̀ȩ̀**   'holiday'   relaxing + day + PNS

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| wek'èhodıı **ekwǫ̀ǫ̀** | 'reindeer' | being looked after + caribou + PNS |
| wet'à detłaa **tł'ıì** | 'starter cord' | starting with it + rope + PNS |

6.5. "Unpossessible" nouns
• some nouns cannot enter the possessive construction discussed in this paper
• they require a periphrastic possessive construction which involves the inflected
postposition etymologically derived from 'from': *-ts'į* (Dëne Sųłıné), *-ts'ǫ* (Tłįchǫ Yatıì)
• this postposition is also used predicatively to assert possession:

(38) Behtsį   standard wets'ǫ.   *Tłįchǫ Yatıì*
      vehicle   3.from
      'He has a standard [transmission] vehicle'

• the possessed noun has no suffix in the periphrastic construction
• the languages that use this strategy in indicating possession show different patterns for its
use, and there is some potential for the periphrastic construction to be used variably with a
range of alienably possessed nouns that can be inflected

(39) *Dëne Sųłıné* **blocking effect**
      a. sets'į łį   'my dog' (Cold Lake dialect)
          1sg.P dog
      b. ?? selįé   'my dog' (Cold Lake dialect)   cf. selįé 'my daughter'
              1sg.dog.PNS

(40) *Tłįchǫ Yatıì* **non-nativized loanwords**
      a. sets'ǫ truck   'my truck'   * se truck   (my truck)
          1sg.P   1sg-truck
      b. gots'ǫ bus   'our bus'
          1pl.P
      c. nets'ǫ phone   'your phone'
          2sg.P
      d. wets'ǫ computer   'her computer'
          3.P

      cf. secheè   'my cheque'   che < English *cheque*
           selıbòò   'my cup'   lıbò < French *le pôt*

(41) *Tłįchǫ Yatıì* **complex deverbal nouns**
      a. ʔechìįlıı   'spoon'
          sets'ǫ ʔechìįlıı   'my spoon'   * seʔechìįlìì   /   * seʔechìįlıı
          1sg.P spoon   1s.spoon.PNS   1s.spoon

      b. sets'ǫ bełexàa   'my scissors'
      c. nets'ǫ wet'à gok'ets'eetìį 'your broom'
          2sg.P broom
      d. nets'ǫ nakwenàoʔǫǫ   'your prophet'   (DTC Romans 11:3)
      cf. Nǫ̀htsįı 'God'   seNǫ̀htsìį 'my God'
           yati   'words'   seyatiì   'my words'

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APPENDIX: Crosslinguistic observations on the choice of the possessed noun suffix

1. *Proto-Athabaskan* (Leer 2006: 279)
"The possessed noun suffix had two allomorphs: *-' (glottal stigma) after a full vowel, and *-e' after a consonant or glottal stop. (Note that I use the symbol /'/ for syllable-final glottal stop, considering it to be a stigma (glottal modification of a vowel or sonorant) rather than a canonical stop consonant; see Leer 1991 [sections 2.1.4 and 5.1.1] and Leer 1999.)"

2. *Slave* (Rice 1989: 212ff)
"The possessive suffix -*é* is required by many nouns when they are in the possessive construction. This suffix indicates alienable possession. Because not all nouns occur with this suffix, those that do not must be lexically marked as such. […] There is a second possessive suffix found in Slave, a high tone. This suffix is used to indicate inalienable possession. […] Not all inalienably possessed nouns occur with this suffix. Many take the suffix -*é*. […] While the suffix -*é* has the general meaning alienable possession and - ´ that of inalienable possession, this is only a very general guideline to their actual usage."

3. *Witsuwit'en* (Hargus 2007: 238ff)
"The possessed stem of a noun can be predicted with great certainty if the non-possessed stem ends in a stop. With vowel-final nouns, the possessed stem appears to be formed via the additional of the possessive suffix -ʔ unless there is a lexically lited possessed stem. With other consonant final nouns, there is so much variability that it appears that the possessed stem, if it exists, is lexically listed." (245)

4. *Tanacross* (Holton 2000: 149ff)
"Alienable possession is marked by a vocalic suffix -*ɛ́ʔ*, and inalienable possession is marked by a non-vocalic suffix -'ʔ. The latter consists of glottal stop together with high tone. In addition to this morphological distinction between alienable and inalienable possession, there exists a similar but not entirely congruent lexical distinction in inherent possession. Nouns which are inherently possessed may or may not include a possessive suffix, but when they do they always marks possession via the inalienable suffix. Most nouns which are not inherently possessed mark possession via the alienable suffix, though a limited number of not inherently possessed nouns may mark possession via either suffix." (149)

5. *Koyukon* (Thompson 1996)
• on possessive suffixes:
"Koyukon nouns are also typically marked as alienably possessed by the addition of the suffix -*e'* to the noun. […] A stem ending in a vowel takes only the glottal stop -' as a possessive suffix" (654)

"The possessive suffix -*e'* does not always occur with alienably possessed nouns. I claim in this section that semantic/pragmatic factors enter into the choice of whether or not to use this suffix, but also that in any cases the absence of the suffix is due to as yet unknown historical factors." (662)

• on alienability
"The question of whether an item is considered inalienable, I believe, is tied to three factors: (1) the degree of its connectednss to the possessor (or the degree of its separability), (2) the degree of its cultural association with the possessor, and, (3) the degree of its salience apart from the possessor." (674)

(42)   **Markers of possession in Koyukon Athabaskan (Thompson 1996:665)**

Inalienable Noun Types	Suffix	No Suffix	Total
Kinship Terms	9	21	30
	30%	70%	100%
Human Body Parts	61	45	106
	57.5%	42.5%	100%
Animal Body Parts	22	4	26
	84.6%	15.4%	100%
Plant Parts	10	1	11
	90.9%	9.1%	100%
Alienable Nouns	49	1	50 (from native lexicon)
	98%	2%	100%

"I interpret these figures as indicating that generic (or cultural) salience plays some role in the choice of whether to have a possessive suffix on inalienably possessed nouns--the further away from humans, the more likely there is to be a suffix. If, however, one is far enough way to be alien, then the likelihood of a suffix again decreases. This is the reason that "unpossessible" nouns and loan words take no possessive suffix. As mentioned above, terms for wild animals take no possessive suffix, while those for pets do." (664f)

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