A Brief Comparison of Two Nłeʔkepmxcín Evidentials*

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Abstract: This paper will compare two second-position clitics in Nłeʔkepmxcín (Thompson River Salish; British Columbia): *nke*, the 'conjectural/inferential' evidential, and *nuk*^{w}, the 'sensory' evidential. This paper builds on work done by Willett (1988), Thompson and Thompson (1992, 1996), Littell et al. (2010), and Littell and Mackie (2011, 2014). It also adds to ongoing documentation work done on the language, and the growing literature on evidentials cross-linguistically.

Keywords: Nłeʔkepmxcín, evidentiality, epistemic modality

1 Introduction

This paper will discuss two of the evidential clitics at work in Nłeʔkepmxcín, an Interior Salish language spoken in British Columbia, Canada. Nłeʔkepmxcín is spoken as an L1 by around 100 people (Gessner et al. 2023. The evidential clitics in Nłeʔkepmxcín all make explicit the source of evidence a speaker has for believing in the truth of a proposition *p*. Both evidentials discussed in this paper are second-position clitics i.e., syntactically, they are restricted to occurring in second position. Similarly to what Matthewson et al. (2007) found for the neighbouring language St'át'imcets (Interior Salish; British Columbia), our data suggest that evidentials can act as epistemic modals in Nłeʔkepmxcín. Section 1 will be an introduction to the language and also to evidentiality more generally. Section 2 will provide an overview of two of the evidential clitics at work in Nłeʔkepmxcín: *nuk*^{w} and *nke*. Section 3 will compare these evidentials. Section 4 will provide some hypotheses and potential analyses of these evidentials from a semantic standpoint. Section 5 compares the Nłeʔkepmxcín evidentials with those present in St'át'imcets. Section 6 concludes.

Data in this paper come from elicitation sessions conducted by the authors over a period of roughly six months, with three different speakers of Nłeʔkepmxcín, unless otherwise indicated. Two speak the Nicola Valley dialect and one speaks the Lytton dialect. These dialects, particularly the Nicola Valley dialect, are under-represented in the literature on Nłeʔkepmxcín, which is itself quite sparse. There is a grammar of the language (Thompson & Thompson 1992), as well as a dictionary (Thompson & Thompson 1996), and a number of publications on prosody (Jimmie 1994), intonation and focus (Koch 2011), and syntax (Kroeber 1999). Papers on the semantics of Nłeʔkepmxcín are limited; brief reference is made to the language in Littell et al. (2010). Thompson and Thompson (1992, 1996) are primarily based on the Spuzzum dialect.

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1.1 Evidentiality

Evidentials are grammatical morphemes that encode the source of evidence a speaker has for a proposition *p* (Aikhenvald 2004). Evidentials can be optional or obligatory depending on the language; languages can have smaller systems of (grammaticized) evidentiality, only distinguishing two separate evidentials, or more complex systems, with five or six different evidentials (Aikhenvald 2004). Many non-European languages distinguish between different types of evidence; for example, in St'át'imcets (Matthewson et al. 2007), there are three evidentials which indicate that *p* has been reported to the speaker, that *p* has been perceived in some way by the speaker, or that *p* has been inferred by the speaker. In Nłeʔkepmxcín, there appears to be at least a three-way distinction between non-visual sensory evidence for *p*, indicated by *nuk*^{w} (Littell & Mackie 2011, 2014), inferential or conjectural evidence for *p*, indicated by *nke*, and reported evidence for *p*, indicated by *ek*^{w}*u* (Thompson & Thompson 1992, 1996). This paper will not discuss the reportative evidential, *ek*^{w}*u*, in detail, but leaves this possibility open for future research.

Evidentials can sometimes act as modals i.e., as quantifiers over possible worlds (Izvorski 1997; Matthewson et al. 2007). In other cases, they act as speech-act (illocutionary) operators which indicate no commitment on the part of the speaker to the truth of *p* (Faller 2002). Even within a language, as has been attested for St'át'imcets (Matthewson 2011), evidentials can be either modal or non-modal. This paper hypothesizes that *nuk*^{w} and *nke* can and do act as modals in contexts compatible with epistemic conversational backgrounds, similarly to what Matthewson et al. (2007) found for St'át'imcets. This is not to say that *nuk*^{w} and *nke* only function as epistemic modals: as we will demonstrate in Section 2, they also have a variety of other uses. As will be demonstrated in Section 3, *nuk*^{w} and *nke* are not felicitous in non-epistemic modal environments. They are also used in a variety of other contexts with varying degrees of semantic equivalence to each other, i.e., they have been found to be interchangeable in certain contexts for certain consultants.

Following Willett's (1988) typology of evidentiality, there exist two main categories of evidentials (direct and indirect) which are then further divided into subcategories. Direct evidentials are further divided into attested evidentials, which then branch off into different types of attestation according to whether the information has been obtained by visual, auditory, or other sensory means. The second main category is indirect evidentials, which are further subdivided into reported and inferring evidentials. Reported evidentials can come from second- or third-hand information, or folklore. Inferring evidentials distinguish between inference based on results, and information based on reasoning. We hypothesize that the Nłeʔkepmxcín evidentials *nuk*^{w} and *nke* occupy very particular spaces in this typology, which will be discussed and analyzed further in Section 4. Willett's (1988) typology is represented visually using the following schema (adapted from Matthewson et al. 2007):

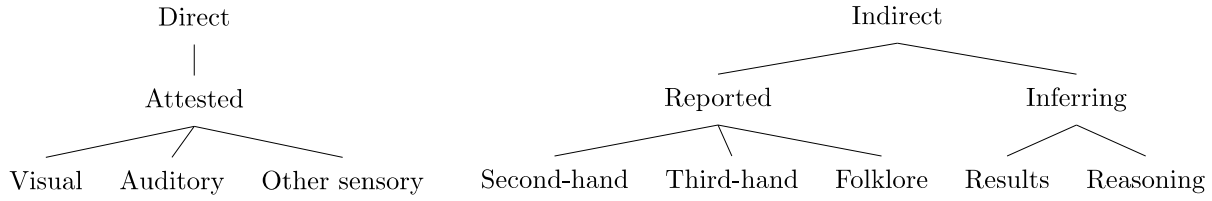

Figure 1: Representation of Willett's (1988) typology of evidentiality, adapted from Matthewson et al. (2007)

2 Evidentiality in Nłeʔkepmxcín

Both of the evidential morphemes in Nłeʔkepmxcín discussed in this paper are second-position clitics syntactically. Thompson and Thompson (1992) classify *nuk*^{w} as 'perceptual', and *nke* as 'conjectural'. This classification is later revised by Littell et al. (2010) and Littell and Mackie (2014) as follows: *nuk*^{w} is the 'sensory' evidential, and *nke* is the 'inferential' evidential. For the purposes of this paper, the more recent categorizations will be used.

Thompson and Thompson (1992) and Littell and Mackie (2014) make no claims as to whether any of these evidentials can act as modals. Littell et al. (2010) hypothesize that the inferential evidential *nke* patterns similarly to the St'át'imcets inferential evidential *k'a* and to the Gitksan inferential clitic *ima*, particularly within the context of conjectural questions, i.e., the authors hypothesize that *nke* can act as an epistemic modal.

2.1 The sensory evidential *nuk*^{w}

The sensory evidential *nuk*^{w} was first reported on by Thompson and Thompson (1992) and first semantically investigated by Littell and Mackie (2011). Littell and Mackie (2011) proposed the following restrictions on the use of *nuk*^{w}*:* (i) the speaker personally has the evidence, i.e., it has not been reported to them by another source; Littell and Mackie (2011) also contend that this restricts *nuk*^{w} to first person contexts, (ii) the evidence is sensory, but not visual — this includes smell, taste, hearing, but also internal states such as hunger, emotions, or gut feelings, (iii) the evidence is present at the time of the utterance, (iv) *nuk*^{w} is infelicitous in interrogative contexts.

Littell and Mackie (2011) report that *nuk*^{w} most frequently accompanies sentences about the speaker's current internal state or emotion, as in (1). It also is found in constructions describing sensory experiences such as smell, taste, hearing, and touch, as in (2). There have been conflicting results about restriction (iii) and restriction (iv) specifically; *nuk*^{w} has been found to be felicitous for certain speakers when the proposition it expresses an attitude towards is situated in the recent past, or in the very near future, as in (3), and *nuk*^{w} has been found to be felicitous in a small subset of interrogative contexts, as in (4).

(1) *téyt kn* ***nuk***^{w}*.*
téyt-kn=**nuk**^{w}
hungry-1SG.SBJ=**SENSE**
'I'm hungry.'

(2) *qeʔnímne* ***nuk***^{w} *ʔe tekɬ.*
qeʔním=ne=**nuk**^{w} ʔe=tekɬ
hear=1SG.ERG=**SENSE** DET=rain
'I hear the rain.'

(3) *Context: Speakers were presented with a picture of people playing instruments and asked to discuss it. One consultant volunteered the following sentence:*
x^{w}*úy'* ***nuk***^{w} *ʔiƛ̓-m ʔeɬ séy'siʔ.*
x^{w}úy'=**nuk**^{w} ʔiƛ̓-m ʔeɬ séy'siʔ
FUT=**SENSE** sing-CTR.MID and play
'They're going to sing and play (for us).'

(4) *Context: You suddenly hear a loud sound. You ask your friend:*

ké? ke? sqe?ním ***nuk**** *xé?e?*

ké?	k=e?=s=qe?ním=**nuk**ʷ	xé?e
Q	D/C=2SG.POSS=NMLZ=hear=**SENSE**	DEM

'Did you hear that?'

Note that (1) to (4) can all also be expressed without *nuk*ʷ; one consultant commented that the use of *nuk*ʷ in contexts like (1) and (2) is usually licensed by a sudden onset of, in (1), the feeling of hunger, and, in (2), the sound of the rain. The same consultant commented that (1) is felicitous if you've just realized you're hungry. A similar point can be made for (3) and (4): in (3), *nuk*ʷ contributes a slight uncertainty on the part of the speaker as to the actions of the people in question. It appears to be licensed by the stimulus being a picture rather than an actual event; i.e., the consultant is inferring what action(s) the group of people pictured will take. This could also be rephrased as 'it feels like they're going to play for us'. The use of *nuk*ʷ attested in (3) is also somewhat contrary to what Littell and Mackie (2011) observed; in this case, the speaker is only basing her judgment on visual evidence, as there is no other evidence available to her. Another discrepancy with the behavior of *nuk*ʷ described by Littell and Mackie (2011) is that, from our investigation, it can appear in interrogative contexts like (4).

The sensory evidential *nuk*ʷ is also often volunteered in constructions translated by 'I think' or 'I feel', as in (5):

(5) *nsx*ʷ*ák*ʷ ***nuk**ʷ* *x*ʷ*úy' tekł tk spiʔxáwt.*

n-s-xʷák**ʷ=nuk**ʷ	xʷúy'	tekł	t=k=s-piʔx̣-áwt
1SG.POSS-NMLZ-desire=**SENSE**	FUT	rain	OBL=D/C=NMLZ-day.removed-isolated.time

'I feel like it's going to rain tomorrow.'

Interestingly, this *n-s-x*ʷ*ák*ʷ*=nuk*ʷ construction has been volunteered by consultants in contexts with a teleological (i.e., goal-oriented) weak necessity flavor, such as the below:

(6) *Context (adapted from Vander Klok 2022): Say that there are two stores in town. One is slightly bigger than the other, so you'd like to go to that one. You plan to go shopping with your sister later on. You tell your sister:*

*nsx*ʷ*ák*ʷ ***nuk**ʷ* *ks nes kt xzúm te ntéwmn.*

n-s-xʷák**ʷ=nuk**ʷ	k=s=nes=kt	xzúm	t=e=n-téwmn
1SG.POSS-NMLZ-desire=**SENSE**	D/C=NMLZ=go=1PL.SBJ	big	OBL=DET=LOC-store

'We should go to the big store.'

This is not to say that *n-s-x̣*ʷ*á*ʷ*k=nuk*ʷ is the dedicated circumstantial weak necessity modal in the language; in fact, from our investigation, it is closer in meaning to the English *want*. Our hypothesis is therefore that it happens to be compatible for certain speakers with situations of teleological weak necessity that can be understood as the speaker expressing their internal biases or motivations for choosing one goal over another. The Nłeʔkepmxcín sentence in (6) could also be translated as 'I want to go to the big store' or 'It is my preference that we go to the big store', as the consultant who volunteered it commented.

As well as the above uses, *nuk*ʷ has also been found to be felicitous (and is often volunteered) in epistemic modal contexts. It can be used in epistemic modal contexts regardless of modal force, although it is more common in contexts of necessity (7) and contexts of possibility (8) than contexts of weak necessity. As will be seen in Section 2.2, *nke* patterns in a very similar manner in epistemic modal contexts.

(7) *Context: You look out of your window, and you see that there is frost on your neighbor's roof. You think:*

*c'éɬ xʷúy' **nukʷ** ke tmíxʷ.*
c'éɬ xʷúy'=**nukʷ** ke=tmíxʷ
cold FUT=**SENSE** DET=land
'It must be cold outside.'

(8) *Context: You're out on a walk in the forest with your friend. You see something that looks like a rock, but it's covered in moss. You say:*

*c'i **nukʷ** te sxʔénx xéʔe.*
c'i=**nukʷ** t=e=sxʔénx xéʔe
EMPH.INT=**SENSE** OBL=DET=rock DEM
'That might be a rock.'

Equivalences between *nke* and *nukʷ*, particularly in epistemic modal contexts, will be discussed in Section 3.

2.2 The inferential evidential *nke*

The inferential evidential *nke* appears in epistemic modal constructions (9–11) regardless of modal force, in conjectural questions (12), in alternative questions (13), and in contexts of disjunction (14):

(9) *Context: Your friend Mary goes on walks to the lake between 10am and 11am on Mondays. It is now 10:30am on Monday. You think:*

*ʔex **nke** ʔe Mary wə ɬe péɬuskʷu.*
ʔex=**nke** ʔe=Mary wə ɬe=péɬuskʷu
be=**INFER** DET=Mary at DET=lake
'Mary must be at the lake.'

(10) *Context: Your friend Mary goes on walks to the lake between 10am and 11am on Mondays. You're on your way to the lake and you run into a friend who tells you that Mary was at the lake an hour ago, and she said she was going to stay there for a while more. You think:*

*ʔex **nke** ƛ̓əm ɬ Mary wə ɬe péɬuskʷu.*
ʔex=**nke** ƛ̓əm ɬ=Mary wə ɬe=péɬuskʷu
be=**INFER** ASP DET=Mary at DET=lake
'Mary should (still) be at the lake.'[1]

(11) *Context: Your friend Mary goes on walks every Monday between 10am and 11am. Sometimes she goes to the lake and sometimes she goes to the forest. It's now 10:30am on Monday. You think:*

*x̣əkus **nke** ɬ Mary wə ɬe péɬuskʷu.*
x̣ək=us=**nke** ɬ=Mary wə ɬe=péɬuskʷu
know=CJV=**INFER** DET=Mary at DET=lake
'Mary might be at the lake.'

[1] We are treating *ƛ̓əm* as an aspectual marker, whose exact semantic contribution to the utterance is unknown. It appears to mean something like 'still' or 'already', according to the preliminary data we have collected.

(12) *Context: You hear someone knocking at the door, but none of your friends or family have told you they're visiting today. You wonder:*

swét us ***nke*** *npoʕʷcínm?*
s-wét=us=**nke** n-poʕʷ-cín-m
NMLZ-who=CJV=**INFER** LOC-knock-mouth-CTR.MID
'Who might that be (knocking on the door)?'

(13) *Context: You're over at your friend's house and they're preparing some drinks. How would they ask you:*

kéʔ kéʔ sx̣ʷóx̣ʷt ʔe ti ské us ***nke*** *he kapi?*
kéʔ k=éʔ=s=x̣ʷóx̣ʷ-t ʔe=ti ské=us=**nke** he=kapi
Q D/C=2SG.POSS=NMLZ=want-T DET=tea PRSM=CJV=**INFER** DET=coffee
'Would you like tea↑ or coffee↓?'[2]

(14) *Context: You're out for a walk in the forest with your friend. You see something out of the corner of your eye, but you can't quite make out what it was. You think it could have been either a dog or a deer. You say:*

wíkəm kn ʔe sqáqx̣a x̣əkús ***nke*** *te smíyc.*
wík-əm=kn ʔe=sqáqx̣a x̣ək=us=**nke** t=e=smíyc
see-MDL=1SG.SBJ DET=dog know=CJV=**INFER** OBL=DET=deer
'I saw a dog or (maybe) a deer.'

Of these contexts, *nke* does not appear to be obligatory in (12) to (14); consultants have volunteered sentences without *nke* in each of these contexts as well. It is the preferred method of indicating epistemic necessity when the evidence comes from prior knowledge, as in (9). Consultants have volunteered and accepted epistemic possibility utterances like (11) without *nke*. In conjectural questions like (12), consultants also regularly volunteer utterances without *nke*; instead, the 'consequential' morpheme *meł* (Thompson & Thompson 1992) is used. Alternative questions like (13) can be formed in many different ways, and disjunction like in (14) can be expressed with the conjunctive/disjunctive marker *ʔeł*, or by marking each disjunct with *ús* 'conjunctive'.

The inferential evidential *nke* can also appear in contexts where the speaker is guessing, inferring (based on prior evidence), or betting as to the truth of a proposition *p*, as in (15):

(15) *nem* ***nke*** *xéʔe wéʔ qʷiʔt!*
nem=**nke** xéʔe wéʔ qʷiʔt
very=**INFER** DEM DEM hurt
'I bet that hurt!'

Consultants sometimes reject *nke* in contexts of absolute certainty, as in (16):

[2] The upward and downward arrows used in this example are taken from Biezma and Rawlins's (2015) paper on alternative questions. This is notation that represents the different intonational patterns for each disjunct and enables us to neatly distinguish between alternative and polar questions.

(16) *Context: You see your friend Mary at the lake.*

#*ʔex* ***nke*** *ʔe Mary wə ɬe péɬuskʷu.*
ʔex=**nke** ʔe=Mary wə=ɬe=péɬuskʷu
be=**INFER** DET=Mary at=DET=lake
Intended: 'Mary must be at the lake.'

However, consultants have also been known to accept *nke* in contexts of certainty, and have sometimes volunteered translations of utterances containing *nke* that indicate certainty, particularly in the near future, as in (17):

(17) *xʷúy'* ***nke*** *ʔiɬ̓̇tis.*
xʷúy'=**nke** ʔiɬ̓̇-t-i-s
FUT=**INFER** sing-T-1PL.OBJ-3ERG
'They're going to sing to us.'

Finally, *nke* is also felicitous when a speaker is making an epistemic modal claim based solely on their prior knowledge. Such a context is presented in (18):

(18) *Context (adapted from Vander Klok 2022): You know that John goes to school from 9am until 4pm every day. You look at the clock and you see that it's 2pm. You think:*

ʔex ***nke*** *ʔe John wə ɬ skul.*
ʔex=**nke** ʔe=John wə=ɬ=skul
be=**INFER** DET=John at=DET=school
'John must be at school.'

In sum, *nke* is compatible with many contexts that inferential evidentials appear in cross-linguistically, such as epistemic modal contexts, conjectural questions, and contexts compatible with inferential evidence. Furthermore, it has also been attested and volunteered in alternative questions and in contexts of disjunction, although it is not the only means of expressing these notions.

3 Comparison of *nukʷ and nke*

As we have seen in Section 2, the Nłeʔkepmxcín evidentials often occupy a very similar space, semantically speaking. They can and do overlap with respect to their semantic functions, and for some speakers evidentials are interchangeable in certain contexts. A number of these contexts will be discussed here. This section compares *nke* and *nukʷ* in a variety of contexts in order to tease apart their differences and examine their similarities.

3.1 Epistemic modal contexts

For all of the speakers consulted, there was a degree of interchangeability between *nke* and *nukʷ* in certain epistemic modal contexts, both in contexts of epistemic possibility and in contexts of epistemic necessity. This suggests that both *nukʷ* and *nke* can act as variable force epistemic modals. These contexts are presented below. Example (19) demonstrates the interchangeability of *nukʷ* and *nke* in a context of epistemic necessity, and (20) in a context of epistemic possibility.

(19) *Context: You're in a fancy restaurant. In this restaurant, they serve the food in the dark, so you can't see it; you can only guess what it is by taste, touch, or smell. You take a bite of something and you recognize the taste. You think to yourself:*

a. *chicken* ***nuk***^{w} *xéʔe.*
chicken **nuk**^{w} xéʔe
chicken **SENSE** DEM
'This must be chicken.'

b. *chicken* ***nke*** *xéʔe.*
chicken **nke** xéʔe
chicken **INFER** DEM
'This must be chicken.'

For (19b), one consultant commented that it is more acceptable in situations where you haven't yet put the mysterious ingredient into your mouth; maybe it really feels like chicken when you touch it, or it really smells like chicken. Example (19a) was preferred when judging based on taste alone. The compatibility of both *nuk*^{w} and *nke* with direct sensory evidence is discussed further in Section 4.2.

(20) *Context: Your friend Tom often likes to go on walks. He doesn't have a set schedule, so on any given day, he might be out walking or he might not. Someone asks you where Tom is today, and you reply:*

a. *x̣əkus* ***nuk***^{w} *x*^{w}*əsít ʔe Tom.*
x̣ək=us=**nuk**^{w} x^{w}əsít ʔe=Tom
know=CJV=**SENSE** walk DET=Tom
'Tom might be (out) walking.'[3]

b. *x̣əkus* ***nke*** *x*^{w}*əsít ʔe Tom.*
x̣ək=us=**nke** x^{w}əsít ʔe=Tom
know=CJV=**INFER** walk DET=Tom
'Tom might be (out) walking.'

c. *x̣əkus (k s)x*^{w}*əsít ʔe Tom.*
x̣ək=us (k=s=)x^{w}əsít ʔe=Tom
know=CJV (D/C=NMLZ=)walk DET=Tom
'Tom might be (out) walking.'

One consultant judged the sentences given in (20) to have no difference in meaning; she commented that they all meant the same thing. For another consultant, there was a slight difference in meaning between (20a) and (20b); she commented that (20b) is only acceptable if you sense Tom walking somehow, not if you've seen him out walking (e.g., maybe you heard footsteps that sound like his outside, or he's walking around in the room above you and you can hear his footsteps through the ceiling). It is worth noting here that different judgments come from speakers from two different dialect areas. Example (20c) was judged acceptable in the given context by all speakers consulted; this could mean that it is *x̣ək=us* that gives an utterance its possibility flavor. This is not to say that *nke* and *nuk*^{w} are not modal, rather that their modal

[3] One consultant volunteered these sentences with different determiners (in this case, *ɬ*). Two consultants volunteered the sentences listed in (20) on separate occasions. The third consultant volunteered the sentences in (19) with changes to subordinating morphology, as indicated by the bracketed (*k*=*s*=) in (20c). No changes were made to the evidentials by any consultant.

force may be explicitly weakened by the use of *x̱ək=us*, in particular by the presence of the conjunctive enclitic *us*.

The conjunctive in Salish languages has been hypothesized to share at least some functions with the Romance subjunctive (Davis 2005), in that it is commonly used in subordinate clauses and can indicate a dubitative attitude towards the truth of *p* on the part of the speaker. In Nłeʔkepmxcín, it is often used in imperative and optative constructions (Thompson & Thompson 1992). It has also been found to appear in contexts that do not have imperative or optative (or otherwise subjunctive) flavors. A more thorough investigation of the conjunctive enclitics in Nłeʔkepmxcín is warranted but is outside the scope of this paper.

It is also worth noting that speakers can and do use other morphological means to express epistemic possibility. These often include *nke*:

(21) a. *ʔe kéʔ us* ***nke*** *xʷəsít ʔe Tom.*
ʔe=kéʔ=us=**nke** xʷəsít ʔe=Tom
COMP=Q=CJV=**INFER** walk DET=Tom
'Tom might be (out) walking.' / 'Tom is walking.'

b. *stéʔ us* ***nke****.*
stéʔ=us=**nke**
what=CJV=**INFER**
'Maybe.'

c. *kéʔ us* ***nke*** *ʔex wə ɬ cuʔwúms.*
kéʔ=us=**nke** ʔex wə=ɬ=cuʔwúm-s
Q=CJV=**INFER** be at=DET=work-3POSS
'Maybe he's at work.' / 'I wonder if he's at work.'

For at least one consultant, *nukʷ* is not felicitous in any of the above ways of saying 'maybe'. This suggests that the versions of 'maybe' listed in (21a–c) i.e., those containing *nke*, are lexicalized.

3.2 Negated epistemic modal contexts

Another set of contexts in which speakers commented on a functional semantic equivalence of *nukʷ* and *nke* is in negated epistemic modal contexts. Two of these are presented in (22a–b) and (23a–b) below:

(22) **Negated epistemic necessity:**

Context: You're driving home from work and you're really craving take-out. You pull up to your favourite restaurant, but all the lights are off and the door is closed. You think:

a. *te* ***nukʷ*** *téʔ ks nwəlcíns.*
te=**nukʷ**=téʔ k=s=n=wəl-cín-s
NEG=**SENSE**=DEM D/C=NMLZ=LOC=open-mouth-3POSS
'It must not be open.'

b. *teʔ* ***nke*** *téʔe ks nwəlcíns.*
teʔ=**nke**=téʔe k=s=n=wəl-cín-s
NEG=**INFER**=DEM D/C=NMLZ=LOC=open-mouth-3POSS
'It must not be open.'

The sentences in (22) were volunteered by different consultants when presented with the same context. This demonstrates that both *nuk*^{w} and *nke* are felicitous in negated epistemic necessity contexts, and that the reason for choosing one over the other appears slight and relatively inconsequential in this particular context.

(23) **Negated epistemic possibility:**

Context: You go to pick your friend up for an early morning hike. When you arrive at her house, her bedroom light is on. However, you know that her husband gets up around this time to go to work, and your friend isn't answering her phone. You think:

a. *teʔ* ***nuk***^{w} *téʔe k sqíɬs ʔi nsnúḵ*^{w}*eʔ.*

teʔ=**nuk**^{w}=téʔe	k=s-qíɬ-s	ʔi	n-snúḵ^{w}eʔ
NEG=**SENSE**=DEM	D/C=NMLZ=awake=3POSS	yet	1POSS-friend

'My friend might not be awake yet.'

b. *teʔ* ***nke*** *téʔe k sqíɬs ʔi nsnúḵ*^{w}*eʔ.*

teʔ=**nke**=téʔe	k=s=qíɬ-s	ʔi	n-snúḵ^{w}eʔ
NEG=**INFER**=DEM	D/C=NMLZ=awake=3POSS	yet	1POSS-friend

'My friend might not be awake yet.'

It is important to note that the utterances in (22) and (23) can be translated either as epistemic necessity utterances (i.e., with the English 'must'), or as epistemic possibility utterances (i.e., with the English 'might'). This suggests that both *nke* and *nuk*^{w} can and do act as variable-force epistemic modals in Nłeʔkepmxcín. The sentences in (23) were given by one consultant but accepted by two other consultants. One consultant commented that they meant "the same" thing in the context given. This shows that both *nuk*^{w} and *nke* are acceptable in negated epistemic possibility contexts, and that the meaning difference is slight. This slight difference in meaning will be explored further in Section 4.

3.3 Conjectural questions

We have also found preliminary evidence that *nuk*^{w} is felicitous in certain conjectural question contexts, such as (24) below:

(24) *Context: You're at home alone and you hear someone knocking at the door, but none of your family and friends have told you they're visiting you today. You think:*

a. *swét us* ***nke*** *npoʕ*^{w}*cínm?*

s-wét=us=**nke**	n-poʕ^{w}-cín-m
NMLZ-who=CJV=**INFER**	LOC=knock-mouth-CTR.MID

'Who might that be (knocking at the door)?'

b. *swét* ***nuk***^{w} *ʔex npoʕ*^{w}*cínm?*

s-wét=**nuk**^{w}	ʔex	n-poʕ^{w}-cín-m
NMLZ-who=**SENSE**	be	LOC-knock-mouth-CTR.MID

'Who might that be (knocking at the door)?'

c. *swét* ***nke*** *meɬ xéʔe?*

s-wét=**nke**	meɬ	xéʔe
NMLZ-who=**INFER**	CNSQ	DEM

'Who might that be?'

d. *swét* ***nuk***^{w} *kéʔ kíycecms?*
s-wét=**nuk**^{w} kéʔ kíyc-e-[t]-cm-s
NMLZ-who=**SENSE** Q arrive-CTR-[T]-1SG.OBJ-3ERG
'Who has arrived to see me?'

It is of note that (24a) and (24b) were volunteered by one consultant; examples (24c) and (24d) were volunteered by another consultant. Both are from different dialect areas. For one consultant, (24a) and (24b) are close in meaning. For another consultant, (24c) and (24d) are slightly different in meaning, as seen by the different translations volunteered; for one consultant, (24d) was less speculative than (24c), as evidenced by the lack of the modal in the translation. This is not to say that *nuk*^{w} cannot be modal, just that it does not always behave the exact same way as *nke*, particularly in conjectural question contexts. More will be said about this alternation in Section 4.

3.4 Alternative questions

There are a few contexts in which *nuk*^{w} and *nke* are not interchangeable for speakers. These include alternative questions (i.e., questions where the speaker has a choice between two options (Biezma & Rawlins 2015)). This is illustrated in (25) below:

(25) *Context: You're over at your friend's house and they're preparing some drinks. They ask you:*

a. *kéʔ keʔ sx̣*^{w}*óx*^{w}*t ʔe ti ske us* ***nke*** *he kapi?*
kéʔ k=eʔ=s=x̣^{w}óx̣^{w}t ʔe=ti ské=us=**nke** he=kapi
Q D/C=2SG.POSS=NMLZ=want DET=tea PRSM=CJV=**INFER** DET=coffee
'Would you like tea↑ or coffee↓?'[4]

b. # *kéʔ keʔ sx̣*^{w}*óx*^{w}*t ʔe ti ske us* ***nuk***^{w} *he kapi?*
kéʔ k=eʔ=s=x̣^{w}óx̣^{w}t ʔe=ti ské=us=**nuk**^{w} he=kapi
Q D/C=2SG.POSS=NMLZ=want DET=tea PRSM=CJV=**SENSE** DET=coffee
Intended: 'Would you like tea↑ or coffee↓?'

One speaker commented that *nuk*^{w} doesn't work here because it specifically means 'feels like'. Other consultants also rejected *nuk*^{w} in alternative questions; one consultant volunteered an alternative question with *nuk*^{w} appearing utterance-final, but *nuk*^{w} does not replace *nke*.

3.5 Disjunction

The sensory evidential *nuk*^{w} is also infelicitous in contexts of disjunction, as demonstrated in (26):

(26) *Context: You're out for a walk in the forest with your friend and, out of the corner of your eye, you see something that looks like it could be a dog or a deer. You're not 100% sure what you saw. You say to your friend:*

a. *wíkəm kn ʔe sqáqx̣a x̣əkus* ***nke*** *te smíyc.*
wík-əm=kn ʔe=sqáqx̣a x̣ək=us=**nke** t=e=smíyc
see-MDL=1SG.SBJ DET=dog know=CJV=**INFER** OBL=DET=deer
'I saw a dog or a deer.'
'I saw a dog, but it might have been a deer.'

[4] This spelling of 'want' is also attested; multiple variants of 'want' are found in the dictionary and have been spelled in this paper according to the particular variant that a consultant used.

b. # *wíkəm kn ʔe sqáqχa χəkus* ***nuk*** *te smíyc.*
wík-əm=kn ʔe=sqáqχa χək=us=**nuk**^{w} t=e=smíyc
see-MDL=1SG.SBJ DET=dog know=CJV=**SENSE** OBL=DET=deer
Intended: 'I saw a dog or a deer.'

One speaker commented that *nuk*^{w} doesn't work here because you're unsure of what you saw. This alternation between *nuk*^{w} and *nke* based on differences in levels of certainty will be discussed in more detail in Section 4.3.

3.6 Non-epistemic modal contexts

We also present some contexts in which both *nuk*^{w} and *nke* are infelicitous; these are primarily deontic, circumstantial, teleological, and bouletic modal contexts.[5] It is of note that the lexicalized *n-s-χ*^{w}*ák*^{w}*=nuk*^{w} construction is sometimes volunteered in contexts of teleological weak necessity and bouletic necessity; given that it is often translated as 'I want' or 'it is my feeling that', this is not that unusual. Many languages use lexicalized verbs of wanting or desire in bouletic modal contexts (Portner 2009), and it is also possible to rephrase some teleological weak necessity contexts as 'it is my opinion that we should do X (in order to achieve a specific goal)'. A deontic possibility context is presented in (27), a teleological possibility context in (28), a circumstantial possibility context in (29), and a bouletic necessity context in (30):

(27) *Context: You're a child and your friend is having a large party for her birthday at her house. You ask your mother if you can go and she replies:*

a. *heʔéy nes wéʔ.*
(heʔéy) nes wéʔ
(yes) go DEM
'Yes, you can go (lit. yes, go).'

b. # *ẏe* ***nke*** *ʔe snes.*
ẏe **nke** ʔe=s=nes
good **INFER** D/C=NMLZ-go
Intended: 'Yes, you can go.'

c. #*ẏe* ***nuk***^{w} *ke snes.*
ẏe **nuk**^{w} ke=s=nes
good **SENSE** D/C=NMLZ=go
Intended: 'Yes, you can go.'

One consultant commented that saying either (27b) or (27c) is like 'guessing' or 'questioning' the asker's ability to go. She added that some people might say it that way, but it's almost 'like you're sucking up'. When asked to rephrase the deontic possibility statement using *nuk*^{w} or *nke* and without modifying other words, the consultant remarked that it sounded odd. This is evidence that neither *nuk*^{w} nor *nke* can act as deontic modals.

[5] For a more thorough explanation of different types of modality, see Portner (2009), Kratzer (2012), Vander Klok (2022), a.o. For the purposes of this paper, deontic modal contexts include contexts that discuss social norms, laws, obligations, and permissions. Circumstantial modal contexts are those compatible with environmental factors, such as the natural world, or a person or thing's inherent ability to complete an action. Teleological modality refers, in short, to goal-oriented modality. Bouletic modal contexts are those compatible with internal wants or desires.

(28) *Context (adapted from Vander Klok 2022): There are two main ways to get to the mountains from your friend's house. You can either take the road that goes by the lake, or you can take the inland road that passes through a town. Both roads take the same amount of time. Someone asks you how to get to the mountains. You reply:*

a. *xʷəsít xeʔ wéʔe péłuskʷu.*
xʷəsít xeʔ wéʔe péłuskʷu
walk DEM DEM lake
'You can take the lake road.' (Closer to: 'You can go by the lake').

b. # *xʷəsít* ***nke*** *xeʔ wéʔe péłuskʷu.*
xʷəsít=**nke** xeʔ wéʔe péłuskʷu
walk=**INFER** DEM DEM lake
Intended: 'You can take the lake road.'

c. #*xʷəsít* ***nukʷ*** *xeʔ wéʔe péłuskʷu.*
xʷəsít=**nukʷ** xeʔ wéʔe péłuskʷu
walk=**SENSE** DEM DEM lake
Intended: 'You can take the lake road.'

d. *xʷúy'kʷ nes wéʔ péłuskʷu e xʷéʔeł.*
xʷúy'=kʷ nes wéʔ péłuskʷu e=xʷéʔeł
FUT=2SG.SBJ go DEM lake DET=road
'You can take the lake road.'

e. #*xʷúy'kʷ* ***nke*** *nes wéʔ péłuskʷue xʷéʔeł.*
xʷúy'-kʷ=**nke** nes wéʔ péłuskʷu e=xʷéʔeł
FUT=2SG.SBJ=**INFER** go DEM lake DET=road
Intended: 'You can take the lake road.'

f. # *xʷúy'kʷ* ***nukʷ*** *nes wéʔ péłuskʷu e xʷéʔeł.*
xʷúy'=kʷ=**nukʷ** nes wéʔ péłuskʷu e=xʷéʔeł
FUT=2SG.SBJ=**SENSE** go DEM lake DET=road
Intended: 'You can take the lake road.'

Sentences (28a–c) are from one consultant; those in (28d–f) are from another consultant. In any case, it is clear that *nukʷ* and *nke* on their own are infelicitous as teleological modal elements.

(29) *Context (adapted from Vander Klok 2022): You're out for a walk with your friend near their home. You haven't been to this area before. You notice that the soil and the climate are similar to near your home, where you know that soapberries grow. You think:*

a. *cuwunwełn ske nʔéye k sx̱ʷúsm.*
cuwu-nwełn ske nʔéye k=sx̱ʷúsm
grow-NCM PRSM here DET=soapberries
'Soapberries can grow here.'

b. #*cuwunweɬn* ***nke*** *nʔéye ksx̣ʷúsm.*
cuwu-nweɬn=**nke** nʔéye k=sx̣ʷúsm
grow-NCM=**INFER** here DET=soapberries
Intended: 'Soapberries can grow here.'

c. #*cuwunweɬn* ***nukʷ*** *nʔéye ksx̣ʷúsm.*
cuwu-nweɬn=**nukʷ** nʔéye k=sx̣ʷúsm
grow-NCM=**SENSE** here DET=soapberries
Intended: 'Soapberries can grow here.'

One consultant commented that you could say (29b) and/or (29c) in this context, but that it would not mean that soapberries simply have the ability to grow in that place, which is the meaning this context intends to target. She commented that (29b) is unsure, as if you're not 100% convinced that soapberries can in fact grow in this place. Example (29c) is felicitous only if you have some more direct evidence, i.e., someone hands you a soapberry that has grown in the area, or you see some soapberry bushes. In any case, this makes it clear that *nukʷ* and *nke* cannot act as teleological possibility modals.

(30) *Context: You're out shopping with your friend. You see a really nice dress in a shop window. You say to your friend:*

a. *xʷúy' tewne xéʔe tkt e ɬeɬúxʷ.*
xʷúy' tew-ne xéʔe t=k=t=e-ɬeɬúxʷ
FUT buy-1SG.ERG DEM OBL=D/C=OBL=DET-dress
'I have to buy that dress (lit. I'm going to buy that dress).'

b. *# xʷúy'* ***nke*** *tewne xéʔe tk te ɬeɬúxʷ.*
xʷúy'=**nke** tew-ne xéʔe t=k=t=e-ɬeɬúxʷ
FUT=**INFER** buy-1SG.ERG DEM OBL=D/C=OBL=DET-dress
Intended: 'I have to buy that dress.'

c. *# xʷúy'* ***nukʷ*** *tewne xéʔe tk te ɬeɬúxʷ.*
xʷúy'=**nukʷ** tew-ne xéʔe t=k=t=e-ɬeɬúxʷ
FUT=**SENSE** buy-1SG.ERG DEM OBL=D/C=OBL=DET-dress
Intended: 'I have to buy that dress.'

One consultant commented that (30b) and (30c) were grammatical utterances, but that you would need to be either touching your wallet, or at the till with the dress in hand, or someone would have needed to give you the money to buy the dress, in order for (30b) and/or (30c) to be felicitous — namely, that there would need to be some kind of evidence present in the discourse or in the context that would lead a hearer to believe that the speaker is buying the dress. This demonstrates that neither *nukʷ* nor *nke* are sufficient to give an utterance bouletic modal flavor.

3.7 Compatibility with direct, non-visual, sensory evidence

We have found that both *nukʷ* and *nke* are compatible with various types of direct evidence, including smell (31), touch (32), and taste (33). In these contexts in particular, the choice of evidential appears to be conditioned by how certain a speaker is about their sensory perception. This will be discussed further in Section 4.1 and Section 4.3.

(31) *Context: You're walking through the forest and you smell smoke. You think:*

a. *ʔex **nke** te emsem swétus.*
ʔex=**nke** t=e=emsem s-wét=us
be=**INFER** OBL=DET=fire NMLZ-who=CJV
'Someone must/might be/is making a fire.'

b. *ʔex **nuk^{w}** te emsem swétus.*
ʔex=**nuk^{w}** t=e=emsem s-wét=us
be=**SENSE** OBL=DET=fire NMLZ-who=CJV
'Someone must/might be/is making a fire.'

(32) *Context: You're at a restaurant where they serve all the food in the dark. You can only guess at what you're being served. You get your first course, and you pick it up and feel it to try and guess what it is. To you, it feels like a mushroom. You say:*

a. *məl̓̓qí **nke** xéʔe.*
məl̓qí=**nke** xéʔe
mushroom=**INFER** DEM
'This must/might be a mushroom.'

b. *məl̓̓qí **nuk^{w}** xéʔe.*
məl̓qí=**nuk^{w}** xéʔe
mushroom=**SENSE** DEM
'This must/might be a mushroom.'

(33) *Context: You're at a restaurant where they serve all the food in the dark. You can only guess at what you're being served. You get your first course, and you taste it. To you, it tastes like a mushroom. You say:*

a. *məl̓̓qí **nke** xéʔe.*
məl̓qí=**nke** xéʔe
mushroom=**INFER** DEM
'This must/might be a mushroom.'

b. *məl̓̓qí **nuk^{w}** xéʔe.*
məl̓qí=**nuk^{w}** xéʔe
mushroom=**SENSE** DEM
'This must/might be a mushroom.'

The compatibility of both *nuk^{w}* and *nke* with direct senses like smell, taste, and touch shows that they are both felicitous in contexts where the speaker has direct evidence and so can both be used as direct evidentials. One speaker noted no difference in meaning between (32a–b) and (33a–b) but did note a preference for *nuk^{w}* when the smell of smoke is stronger in (31).

4 Analysis

This section will present a number of hypotheses we have developed to account for those contexts where *nuk^{w}* and *nke* are semantically interchangeable, as well as contexts in which they are not. Three main hypotheses will be explored in this section: that the choice of *nuk^{w}* in place of *nke* and vice versa is based

on distinctions between sources of evidence; that this alternation is due to speaker variation; and that this alternation is conditioned by how certain the speaker is of the truth of *p*.

4.1 Categorization according to Willett (1988)

In view of the observations made in this paper so far, it is clear that assigning either *nuk*^{w} or *nke* to one of Willett's (1988) categories will not be as clear-cut a task as it could be. We have demonstrated that *nuk*^{w} and *nke* are both compatible with a range of sources of direct evidence, such as speaker hearing, taste, smell, and, for some speakers, sight. We have also demonstrated that *nke* is compatible with indirect evidence, in the form of results and also reasoning (given its appearance in epistemic modal contexts that have nothing to do with the speaker's senses). These observations are curious in a number of ways; firstly, it is uncommon cross-linguistically for an evidential to be able to encode both direct and indirect evidence. Secondly, the compatibility of both *nke* and *nuk*^{w} with all types of direct sensory evidence is also not widely attested; usually, languages will partition this domain into visual and non-visual. Willett's typology of evidentiality does nevertheless allow us to pinpoint a crucial difference between *nuk*^{w} and *nke*; the latter is compatible with inference and the former is not. This partition allows us to make the broad claim that *nuk*^{w} is a direct sensory non-visual evidential and *nke* is both a direct sensory non-visual and indirect inferring evidential. The domain of the indirect reported evidential appears to be almost entirely reserved for *ek*^{w}*u*, which we have not discussed. We have marked in bold on our adapted diagrams of Willett's (1988) typology the domains we believe each evidential to occupy. The domain we believe *nuk*^{w} to occupy is the following:

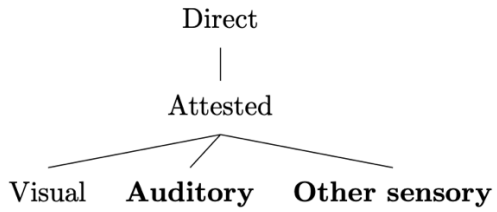

Figure 2: *nuk*^{w} modelled on Willett's (1988) typology of evidentiality

This characterization restricts *nuk*^{w} to being compatible only with non-visual sensory evidence. It makes no claims about *nuk*^{w}.

The domain we believe *nke* to occupy is the following:

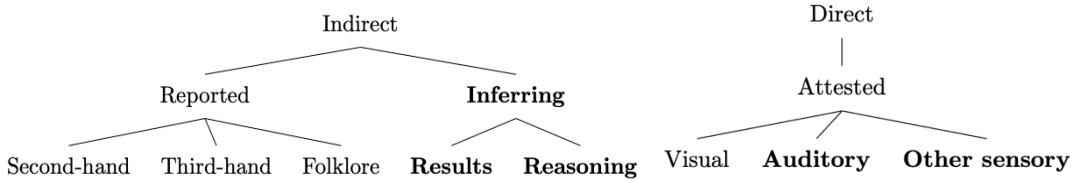

Figure 3: *nke* modelled on Willett's (1988) typology of evidentiality

This characterization demonstrates that *nke* is compatible with both inferential evidence based on results and reasoning, and evidence based on direct perception (but not visual perception).

This categorization does raise a few issues that are outside the scope of this paper, namely, the fact that direct non-visual sensory evidence is often what speakers use to make inferences, so it can be hard to separate pure inference from inference based on non-visual sensory evidence.

4.2 Distinction based on evidence source

According to the categorization of these evidential morphemes that we have adopted, there should be some slight differences in the contexts of use of *nuk*^{w} and *nke*. Broadly speaking, *nuk*^{w} should be restricted to contexts where the speaker has non-visual, sensory direct evidence for a proposition *p*, whereas *nke* should be felicitous in contexts where the speaker has visual, sensory, or knowledge-based evidence for *p*.

We have seen above that, for one speaker, this distinction holds. It is also important to note that, in contexts where *nuk*^{w} is preferred, *nke* is often still felicitous. This suggests that *nuk*^{w} is compatible with a slightly narrower range of contexts than *nke*, i.e., there are more restrictions on its usage than there are for *nke*. Even when the evidence available to the speaker is sensory but not visual, *nke* is still felicitous — as seen in (18), one consultant prefers *nke* when evidence comes from touch or smell, and *nuk*^{w} when evidence comes from taste only. We hypothesize that this is because *nuk*^{w} is a direct evidential (according to Willett's (1988) typology), whereas *nke* cross-cuts the direct/indirect evidence boundary and can be felicitous in contexts where the speaker has direct sensory evidence as well as those in which the speaker has only indirect evidence.

The distinction between evidence sources is demonstrated below:

(34) *Context: You're at work and you notice one of your co-workers is absent. You're discussing their absence with your other co-workers; none of you knows for sure why this co-worker is absent, so you're all just speculating. You say:*

a. *x̣əkus* ***nke*** *k sq*^{w}*nóx̣*^{w}*s.*
xəkʷ=us=**nke** k=s=qʷnóx̣ʷ=s
know=CJV=**INFER** D/C=NMLZ=sick=3POSS
'Maybe she's sick.'

b. # *x̣əkus* ***nuk***^{w} *k sq*^{w}*nóx̣*^{w}*s.*
xəkʷ=us=**nuk**^{w} k=s=qʷnóx̣ʷ=s
know=CJV=**SENSE** D/C=NMLZ=sick=3POSS
Intended: 'Maybe she's sick.'

For one consultant, in order for (34b) to be felicitous, the person who is talking has to be actively touching the person who they think might be sick. If they are just speculating, then it is infelicitous. This supports our hypothesis that *nuk*^{w} requires some kind of direct, sensory evidence in order to be felicitous, while *nke* does not.

This distinction based on evidence source is also seen in (35) and (36), which are reiterated below:

(35) *Context: You're at a restaurant where they serve all the food in the dark. You can only guess at what you're being served. You get your first course, and you pick it up and feel it to try and guess what it is. To you, it feels like a mushroom. You say:*

a. *məƛ̓qí* ***nke*** *xéʔe.*
məƛ̓qí=**nke** xéʔe
mushroom=**INFER** DEM
'This must/might be a mushroom.'

b. *məƛ̓qí* ***nuk***^{w} *xéʔe.*
məƛ̓qí=**nuk**^{w} xéʔe
mushroom=**SENSE** DEM
'This must/might be a mushroom.'

(36) *Context: You're at a restaurant where they serve all the food in the dark. You can only guess at what you're being served. You get your first course, and you taste it. To you, it tastes like a mushroom. You say:*

a. *məɬ̓qí **nke** xéʔe.*
məɬ̓qí=**nke** xéʔe
mushroom=**INFER** DEM
'This must/might be a mushroom.'

b. *məɬ̓qí **nuk^{w}** xéʔe.*
məɬ̓qí=**nuk^{w}** xéʔe
mushroom=**SENSE** DEM
'This must/might be a mushroom.'

All three consultants accepted *məɬ̓qí nke xéʔe* in both contexts, but all volunteered *məɬ̓qí nuk^{w} xéʔe* initially. One consultant commented that *məɬ̓qí nke xéʔe* is better if you have only touched the mushroom and not tasted it, while *məɬ̓qí nuk^{w} xéʔe* is better if you are basing your statement on taste alone. The same consultant also commented that, if you were at this fictional dinner with multiple people, and someone tasted the first course and commented *məɬ̓qí nuk^{w} xéʔe*, you could then, without having tasted the first course yourself, tell another person at the table *məɬ̓qí nke xéʔe*. For this consultant, you could not say *məɬ̓qí nuk^{w} xéʔe* if you haven't tasted or touched the mushroom yourself.

A third context in which the difference between evidence sources influences speakers' choice of either *nuk^{w}* or *nke* is presented below:

(37) *Context: I am trying to find my friend's dog, Clyde, inside a house. I have no idea where he is. I see a large box in the corner of the room I am in, and Clyde could easily fit in the box. I think he could be inside the box.*

a. *xəkus **nuk^{w}** ɬ ʔex ɬ néʔe tk k'^{w}áx^{w}eh ɬ Clyde.*
xək=us=**nuk^{w}** ɬ=ʔex ɬ=néʔe t=k=k'^{w}áx^{w}eh ɬ=Clyde
know=CJV=**SENSE** D/C=be DET=DEM OBL=D/C=box DET=Clyde
'Clyde might be in that box.'

b. *xəkus **nke** ɬ ʔex ɬ néʔe tk k'^{w}áx^{w}eh ɬ Clyde.*
xək=us=**nke** ɬ=ʔex ɬ=néʔe t=k=k'^{w}áx^{w}eh ɬ=Clyde
know=CJV=**INFER** D/C=be DET=DEM OBL=D/C=box DET=Clyde
'Clyde might be in that box.'

Consultant Comment: "The second one [(37b)] is more correct. To use the first one, [(37a)], you have to have your hand on it."

While this comment suggests both are understood and felicitous under specific circumstances, it provides further evidence that direct sensory evidence is required to licence *nuk^{w}*.

4.3 Speaker variation

Our three consultants come from two different dialect areas: Nicola Valley (Coldwater) and Lytton. Interestingly, each consultant seems to have slightly different uses of *nuk^{w}*; usage of *nke* is more standardized and predictable. For one consultant, *nuk^{w}* only means 'seems/feels like'; for other consultants its meaning is slightly broader. One such example of this difference can be seen in (38).

(38) *Context (adapted from Littell & Mackie 2011): Sander has some odd opinions about the taste of food. Rather than finding soapberries are bitter in taste like most everyone, he finds them salty. To describe his opinion, you say:*

c̓áltc̓ál ***nukʷ*** *xéʔe ʔe sx̣ʷúsm cút xéʔe ʔe Sander.*
c̓álc̓ál=**nukʷ** xéʔe ʔe=sx̣ʷúsm cú-t xéʔe ʔe=Sander
salt~RED=**SENSE** DEM D/C=soapberry say-T DEM DET=Sander
'Soapberries taste salty to Sander (lit. Soapberries are salty according to Sander).'

Consultant 1 comment: "Yeah, it's okay."
Consultant 2 comment: "I don't know about the *nukʷ*. Are **you** tasting them?"

Consultant 1 and 2 are from different dialect areas. Consultant 2's comment reveals that she regards *nukʷ* as infelicitous in (38) because it is used to describe the opinion of someone else, rather than the opinion of the speaker. This also reveals her more restricted use of *nukʷ*. Consultant 2 patterns more like the speakers Littell and Mackie (2011) worked with, whereas Consultant 1 has a less restricted use than previously described. We believe this to be a dialect difference. It is possible, although speculative, that this distinction in usage comes from the existence of a cognate verb *nukʷ*, which solely means 'to feel like' (Thompson & Thompson 1996). The grammaticization of *nukʷ* as an evidential clitic may therefore be more recent than the grammaticization of *nke*, and for some speakers, this is reflected in the contexts which *nukʷ* is compatible with. Further investigation is required to find the full scope of the differences in *nukʷ* usage between the dialects.

4.4 Distinction based on certainty

Another hypothesis that we put forward accounts for certain cases where consultants translate sentences containing *nke* and *nukʷ* as having slight differences in certainty. Often, *nke* is used to express a higher degree of certainty than *nukʷ*; although sometimes this pattern is reversed. The certainty distinction can be seen in (39):

(39) *Context: You can see that there are some dark clouds in the sky, and you say/think to yourself:*

a. *xʷúy'* ***nukʷ*** *tekł.*
xʷúy'=**nukʷ** tekł
FUT=**SENSE** rain
'I think it's going to rain.' (*Literally:* 'It seems like it's going to rain.')

b. *xʷúy'* ***nke*** *tekł.*
xʷúy'=**nke** tekł
FUT=**INFER** rain
'It's more than likely going to rain.' / 'It's probably going to rain.'

One consultant volunteered (39b) when she judged that the likelihood of it raining was higher than in (39a). When the same sentences were presented in the same context to a second consultant, she judged that (39b) was stronger in likelihood than (39a).

However, there are contexts in which *nke* appears to be less certain than *nukʷ* for certain consultants. Such a context is a slightly modified version of (35) above:

(40) *Context: It's your birthday and you're trying out a new restaurant. In this restaurant, all the food is served in the dark, so customers can't tell what it is they're eating. You're eating the main course, and you think you recognize the taste of something. You think:*

a. *chicken* ***nuk*** *xéʔe.*
chicken=**nuk**^{w} xéʔe
chicken=**SENSE** DEM
'This must/might be chicken.'

b. *chicken* ***nke*** *xéʔe.*
chicken=**nke** xéʔe
chicken=**INFER** DEM
'This must/might be chicken.'

One consultant commented that (40a) is more sure, or certain, than (40b), but also commented that "it doesn't always work like that". Another example of *nuk*^{w} being more certain than *nke* can be seen in (41).

(41) *Context: You are walking in the woods when you see some paw prints in the mud that look like skunk paw prints.*

a. *splənt* ***nuk*** *xéʔe.*
splənt=**nuk**^{w} xéʔe
skunk=**SENSE** DEM
'That must/might be a skunk.'

b. *splənt* ***nke*** *xéʔe.*
splənt=**nke** xéʔe
skunk=**INFER** DEM
'That must/might be a skunk.'

One consultant commented that (41a) is "more sure" than (41b), and that (41b) is "like you're asking for someone's input". More investigation is needed into this very slight difference in certainty that sometimes influences the choice of evidential.

5 Comparison with St'át'imcets

Thus far, we have described the contexts of use of two of the second-position evidentials in Nłeʔkepmxcín. We have also discussed contexts in which they are essentially semantically equivalent for speakers, and also some contexts in which there appears to be a very fine-grained distinction between the two. We now turn to a brief comparison with a similar three-way split evidential system, that of a neighboring Northern Interior Salish language: St'át'imcets (Matthewson et al. 2007). Similarly to Nłeʔkepmxcín, St'át'imcets contains an inferential evidential, *k'a*. The other evidentials at work in St'át'imcets are *-'an* 'perceived evidence', and *ku7*, 'reportative'.

Given that Nłeʔkepmxcín and St'át'imcets both belong to the Northern Interior branch of the Salish language family, we might expect a degree of equivalence between at least some of their syntax and semantics. Preliminary investigation by the authors of this paper reveals that *nke* appears to pattern similarly to *k'a*; interestingly, Nłeʔkepmxcín consultants sometimes volunteer sentences without an evidential where St'át'imcets speakers would use *-'an*. The equivalence between *nke* and *k'a* is presented in (42), and the alternation between *k'a*, *nke*, and *-'an* is demonstrated in (43).

(42) *Context: You had five pieces of sc̓wen left when you checked yesterday. Today, you go to get some sc̓wen to make some soup and you notice it's all gone! You aren't sure who took them but you know that your housemate John really loves sc̓wen and usually eats lots of it when he gets the chance! You think:*

a. **St'át'imcets:**

*ts'aqwan'ás **k'a** i ts'wána kw sJohn.*
ts'aqw-an'-ás **k'a** i ts'wán-a kw s-John
eat-DIR-3ERG **INFER** DET.PL wind.dried.salmon-DET DET NOM-John
'John must have eaten the *ts'wan*.' (Matthewson et al. 2007:225)

b. **Nłeʔkepmxcín:**

*ʔupis **nke** e sc̓wen e John.*
ʔupis=**nke** e=sc̓wen e=John
eat=**INFER** DET=sc̓wen DET=John
'John must have eaten the *sc̓wen*.'

(43) *Context: Same as above, except this time, you see the sc̓wen skins in John's room.*

a. **St'át'imcets:**

*ts'aqwan'ás **k'a** i ts'wána kw sJohn.*
ts'aqw-an'-ás **k'a** i ts'wán-a kw s-John
eat-DIR-3ERG **INFER** DET.PL wind.dried.salmon-DET DET NOM-John
'John must have eaten the *ts'wan*.' (Matthewson et al. 2007:225)

b. **St'át'imcets:**

*ts'aqwan'ás**'an** i ts'wána kw sJohn.*
ts'aqw-an'-ás-**'an** i ts'wán-a kw s-John
eat-DIR-3ERG-**PERC.EVID** DET.PL wind.dried.salmon-DET DET NOM-John
'John apparently ate the *ts'wan*.' (Matthewson et al. 2007:225)

c. **Nłeʔkepmxcín:**

*ʔupis **nke** e sc̓wen e John.*
ʔupi-s=**nke** e=sc̓wen e=John
eat-3ERG=**INFER** DET=sc̓wen DET=John
'John must have eaten the *sc̓wen*.'

d. **Nłeʔkepmxcín:**

*ʔupis **nuk^{w}** e sc̓wen e John.*
ʔupi-s=**nuk^{w}** e=sc̓wen e=John
eat-3ERG=**SENSE** DET=sc̓wen DET=John
Intended: 'John must have eaten the *sc̓wen*.'

e. **Nłeʔkepmxcín:**

ʔupis e John e sc̓wen.
ʔupi-s e=John e=sc̓wen
eat-3ERG DET=John DET=sc̓wen
'John ate the sc̓wen.'

In (42), it is clear that both *k'a* and *nke* are felicitous in similar contexts, i.e., in contexts where the speaker is inferring results based on the evidence available to them. In (43), when presented with visual evidence that increases the likelihood of John having eaten the *sc̓wen*, i.e., seeing the *sc̓wen* skins in his room, our consultants volunteered the utterance in (43e), that is, a sentence containing no evidential marking and intended to be understood as a factual declaration. Consultants did not volunteer versions of (43) containing *nuk*^{w}; in fact, they explicitly rejected it. It is therefore clear that *'an* and *nuk*^{w} do not occupy the same space from a semantic standpoint. This investigation therefore provides evidence of semantic parallels between *k'a* and *nke*, but not total equivalence of the evidential systems. Further investigation is required to establish whether or not there is any equivalence between *ek*^{w}*u* and *ku7*.

6 Conclusion

In this paper, we have provided an overview of two of the second-position evidentials at work in Nłeʔkepmxcín. We have described their contexts of use, both modal and non-modal, and have compared them from a semantic standpoint. We have demonstrated that, for all consultants, there is a degree of interchangeability between *nuk*^{w} and *nke*, particularly in epistemic modal contexts. We have presented a number of hypotheses to account for this semantic equivalence, including speaker variation, restrictions on evidence source, and fine-grained differences in the level of certainty encoded by the different evidentials.

We also hypothesize that *nuk*^{w}, the sensory evidential, and *nke*, the inferential evidential, can act as epistemic modals. We have also demonstrated that they are infelicitous in deontic, circumstantial, teleological, and bouletic modal environments. We have also claimed that the two evidentials occupy slightly different spaces semantically, and have situated them according to Willett's (1988) typology. The sensory evidential *nuk*^{w} is compatible with contexts where the speaker has direct sensory evidence (most often non-visual) for a proposition *p*. The inferential evidential *nke* is compatible both with situations in which the speaker has direct, non-visual, sensory evidence for *p* and those in which a speaker is inferring *p* based on either results or deduction. This distinction enables us to account for those contexts in which *nuk*^{w} and *nke* are essentially interchangeable for certain consultants; their evidential domains overlap but are not the exact same. The inferential evidential *nke* is compatible with a wider range of contexts than the sensory evidential *nuk*^{w}, but *nuk*^{w} is preferred in certain contexts where the speaker has more certain, direct, sensory evidence for believing in a proposition *p*. All hypotheses presented in this paper need to be investigated further and tested through more elicitation sessions.

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