Questions and Answers in Nɬeʔkepmxcin: Facilitating Transfer from Theoretical Linguistics to Education*

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Questions in Nɬeʔkepmxcin are typically answered with a cleft (*It is a book that I wrote*). There are both bare clefts and introduced clefts. This paper explores the use of a computer animation task to both answer a theoretical question (*how do the two cleft types differ in distribution?*) and to make the findings readily convertible into an educational tool teaching how to answer simple questions. Although bare clefts and introduced clefts share similar semantics, in that both lack presuppositions of exhaustivity and of existence, bare clefts are preferred in wide focus contexts where nothing is presupposed to exist. Both cleft types are used to introduce new information. In contrastive focus contexts, introduced clefts are preferred while simple bare clefts are not used at all.

1 Introduction

Conversation commonly consists of series of questions and answers (*Hello, how are you? What did you do today? Can you help me fix my bike later? Did you hear what happened to Bill?* ... and so on) that form the staple of language use. Yet little of the existing documentation of First Nations languages covers such everyday exchanges. At the same time, such conversations are useful for language educators and learners wanting to use their language in practical situations. Thus, everyday conversation constitutes both an empirical and educational gap in current First Nations language research.

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This paper addresses these gaps by examining the form of answers to questions in Nɬeʔkepmxcin. I attempt to build a bridge between theoretical research (*what are the properties of answers in Nɬeʔkepmxcin)* and educational needs (*an activity to teach simple questions and answers)* by experimenting with a multimedia task for recording language data. The task consists of simple conversational exchanges asking for the identity of objects, as in the English examples below. I show that the task enables both the recording of data for theoretical analysis on the one hand, and conversion into a teaching tool by simply linking the recordings to the multimedia elements (see also Burton 2005).

(1) A: What's this?
B: That's a GRIZZLY. [new information]

(2) A: Is this a grizzly?
B: No, THAT's a grizzly. [contrastive information]

(3) THEORETICAL QUESTION ⟷ EDUCATIONAL QUESTION
How do answer types differ? *How do you answer questions?*

The theoretical question to be addressed is as follows. The answer to a question (commonly called the "focus" of the conversation – Jackendoff 1972, etc.) is typically clefted in Nɬeʔkepmxcin, and indeed across the Salish language family (see Kroeber 1997, 1999). However, there are two types of clefts: 'bare' clefts and 'introduced' clefts (terms borrowed from Kroeber 1999). Both clefts can be used to introduce new information into a conversation (1), and both share similar semantics (Davis et al. 2004 on St'at'imcets and Straits Salish). What, then, if any, is the distributional difference between the two types of clefts? In this paper, I examine the use of bare versus introduced clefts when introducing contrastive information in a conversation ('THAT' in 2). We shall see that, despite having similar semantics, introduced clefts are preferred in the contrastive context, and bare clefts are never used for contrastive focus without additional contrastive lexical items in the sentence (*the other one, that one there, etc.).*

The structure of the paper is as follows. In section 2, I outline the basic syntax of Nɬeʔkepmxcin, and review the two types of clefts used. Section 3 follows Davis et al. (2004 on St'at'imcets and Straits Salish) in showing that Nɬeʔkepmxcin clefts, too, lack presuppositions of exhaustivity and of existence; However, I argue that introduced clefts are rarely used in wide focus contexts where nothing is presupposed to exist. This, then, constitutes the first difference between the two types of clefts. In section 4, I report results from multimedia elicitation tasks which show that introduced clefts are preferred in contrastive focus situations. Section 5 shows how, after the language recordings have been made, these multimedia tasks can be converted into educational tools for learning simple questions and answers. Finally, section 6 concludes.

2 Background: Syntax

2.1 Basic syntax

Nɬeʔkepmxcin is a predicate-initial language, with a basic transitive word order of verb-subject-object (VSO) (Koch 2006b), shown in example (4). Auxiliaries, or light verbs, like 'progressive' *ʔex*[1] in (5), often precede the main verb (AuxVSO). Second-position clitics, including evidentials, the yes/no question marker, clause-typing morphology, and discourse level deictics (such as the ubiquitous demonstrative *xeʔ* in (4) and (5)), immediately follow the first prosodic word. Nuclear (or primary) stress appears on the rightmost lexical constituent, typically the object in a basic transitive sentence. I show this by underlining it in (4) and (5).[2]

(4)

V	[2nd position clitic]		S
kən-t-Ø-és	xeʔ	[e	skíxzeʔ-kt]
help-TRANS-3O-3TS	DEM	[DET	mother-1PL.POSS]

O

[e sínciʔ-kt]

[DET younger.brother-1PL.POSS]

"Our mother helped our brother." / (*"Our brother helped our mother.")

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[1] I use 'progressive' as a convenient description only. The actual semantics of this auxiliary require more research.

[2] Data are presented in the orthography developed in Thompson and Thompson (1992, 1996), and Kroeber (1997). The phonemic key to the *orthography* is as follows: *c* = [tʃ] or [č], *ċ* = [ts], *c̓* = [ts'], *e* = [e, æ, a, ɛ, ə], *ɋ* = [ʌ], *i* = [i, ei, ai], *o* = [o, ɔ], *s* = [ʃ] or [š], *ṣ* = [s], *u* = [u, o, ɔ], *y* = [y, i]. Nɬeʔkepmxcin [z] is more lateral than English [z], though there may be considerable regional or speaker variation. See Thompson and Thompson (1992) in particular for the phonetic realizations of phonemic vowels across contexts.

Abbreviations used in the gloss (based on Thompson and Thompson 1992, 1996, Kroeber 1997, Jimmie 2002, 2003) are: '-' = affix or clitic, '=' = lexical suffix, APPL = applicative, AUG = augmentative reduplicant, AUT = autonomous, CAUS = causative, CNSQ = consequential, COMP = complementizer, CONJ = conjunctive (i.e. subjunctive - see ft. 5), DEM = demonstrative, DET = determiner, DIM = diminutive, DRV = directive transitivizer, DVL = developmental, EMPH = emphatic, EVID = evidential, FUT = future, IM = immediate, INCH = inchoative, INSTR = instrumental, CLEFT = cleft predicate, IRL = irrealis, LOC = locative, MDL = middle, NCM = non-control middle, NCT = non-control transitivizer, NEG = negation, NOM = nominalizer, O = object, OBL = oblique, even = persistent (emphatic particle), PL = plural, POSS, PS = possessive, PROG = progressive, PRP = proportional, Q = y/n question marker, RED = reduplicant, REFL = reflexive, REL = relational, RFM = reaffirmative, SG = singular, STAT = stative prefix, SUBJ.EXTR = subject extraction suffix, TRANS/TR = control transitivizer, TS = transitive subject. For reasons of space and clarity, I do not provide full morphological breakdowns for most nouns.

(5)

Aux	[2nd pos. clitic]	V	S
ʔéx	xeʔ	c̓aχ̣-t-Ø-és	[t̓ n-sχ̣áẏ̓wi]
PROG	DEM	clean-TR-3O-3TS	[DET 1SG.PS-husband]
	O		
[e	swúxʷt].		
[DET	snow]		

"My husband was cleaning up the snow."

2.2 Clefts

Clefts are typically employed to mark narrow focus in Nt̓eʔkepmxcin (Kroeber 1997). I adopt the fairly common diagnostic that focus is the answer to the wh-word in a question (Jackendoff 1972, Selkirk 1995, Büring 1997, etc.). There are two types of clefts in Nt̓eʔkepmxcin. The structure of both cleft types conforms to the generalization of the previous section, namely that Nt̓eʔkepmxcin clauses are predicate-initial (Koch 2007a).

'Introduced' clefts (Kroeber 1999) consist of a cleft predicate *c̓e* or *ʔe* which 'introduces' the focused DP (the head of the cleft), and then a cleft clause (or 'residue clause'). Like a headless relative clause, the cleft clause is typically introduced by a determiner/complementizer[3] and carries subordinating morphology (see Kroeber 1997, 1999). In (6B), the DP *e Flora* is the focus (answering the question word 'who' of 6A), and follows the cleft predicate *c̓e* and the second position clitic *xeʔ*. In the residue clause, the verb 'wear' is preceded by a complementizer and carries *–emus* extraction morphology (Kroeber 1997).

(6)

A:	ʔe	swét	xeʔ	k	s-t̓úm-s-t-emus
	and	who	DEM	COMP	STAT-wear-CAUS-TR-3O-SUBJ.EXTR
	e	ʔes-típtept	te	nk̓npáχ̣n.	
	DET	STAT-black	OBL	vest	

"Who is wearing the black vest?"

B:	c̓e	xeʔ	[e Flóra]$_{FOC}$	e	s-t̓úm-s-t-emus
	CLEFT	DEM	DET Flora	COMP	STAT-wear-CAUS-TR-3O-SUBJ.EXTR
	e	ʔes-típtept	te	nk̓npáχ̣n.	
	DET	STAT-black	OBL	vest	

"[FLORA]$_{FOC}$ is the one wearing the black vest."
(literally "It is [FLORA]$_{FOC}$ that is wearing the black vest."

[3] Determiners in Nt̓eʔkepmxcin also serve as complementizers. See Kroeber 1997, 1999, and Koch 2006a for further discussion. I will gloss these as COMP 'complementizer' in Nt̓eʔkepmxcin clefts, for easier comparison with English clefts, but bear in mind that we could gloss these cases as determiners also; indeed, since these clauses appear to be syntactic subjects of cleft predicates, 'determiner' is probably more accurate (Kroeber 1997).

The second type of cleft is a 'bare' cleft. In 'bare' clefts, a bare noun or adjective acts both as the matrix predicate and as the focus (the cleft head), and takes the residue clause as its subject. Just like in introduced clefts, the residue clause is introduced by a determiner and carries subordinating morphology. In example (7B), the bare noun *pinṣ* is both the predicate and the focus; the subordinated verb *ɬaʔxans* 'eat' is introduced by a complementizer *e* and prefixed with nominalizing morphology *n-s-*.[4]

(7) A: Sté? xʷúẏ k s-ɬaʔxáns-əp tk ṣʕáp.
what FUT IRL NOM-eat-2PL.POSS OBL.IRL evening
"What are you people going to eat this evening?"

B: [píns]$_{FOC}$ nce? xʷúẏ e n-s-ɬaʔxáns.
beans 1SG.EMPH FUT COMP 1SG.POSS-NOM-eat
"I'm gonna' eat [BEANS]$_{FOC}$."
(literally "It's [BEANS]$_{FOC}$ that I'm gonna' eat."

The syntax of these clefts merits a few further remarks. First, although subordinated verbs in the residue clauses are marked by subordinating morphology, like *–emus* in (6B), it is not the case that the focus is extracted from the residue clauses. Under such an analysis, cleft sentences would be single CP structures – simple relative clauses, in essence, with the focus corresponding to the head of the relative clause.

(8) Single CP analysis of clefts (to be rejected)
[$_{CP}$ [$_{NP}$ pínṣ]$_k$ nce? [xʷúẏ e n-s-ɬaʔxáns t_k]].

However, as noted by Davis et al. (2004:105-6) for St'at'micets and Straits Salish, proper names can easily be clefted (*Flora* in 6B). Yet, like in English, proper names cannot be restricted elsewhere in the language except in conditions when several persons of the same name are being distinguished (Heggie 1988, Hedberg 2000), and thus proper names make poor heads of relative clauses (9a). Clefts, on the other hand, may (and commonly *do*) have proper names as their heads without such special conditions (9b), both in English and Salish.

[4] The position of the future marker *xʷúẏ* is also somewhat anomolous in (7B), coming before the complementizer of the clause whose verb it modifies; but Kroeber (1997, 1999:390) has noted that cleft residues with future markers are sometimes not introduced by a determiner at all, or sometimes only erratically, with the consultants he has worked with. I concur with this finding, adding that sometimes consultants will have the future marker preceding the complementizer, as in examples (7B) and (11). Similarly, my consultants sometimes omit the complementizer introducing residue clauses beginning with another auxiliary, imperfective *(w)ʔex*.

(9) a. #I talked to (the) John that is sitting in the tree.
[requires a context where there is more than one John: one John sitting in the tree, another sitting by the pool, another standing in the kitchen, etc.]

b. It is Bill that is sitting in the tree.
[does not require a special context with more than one Bill]

This is a strike against a monoclausal analysis of clefts, and in favour of a biclausal analysis.

Second, the complementizer introducing clefts is usually the 'specific' *e* or 'irrealis' *k* (terms from Kroeber 1997), whereas headed relative clauses are introduced by an oblique marker *t* (Kroeber 1997:392 calls *t* 'attributive' in these cases); in example (10b), the oblique marker *t* and complementizer *ɬ* combine to introduce the relative clause. Oblique *t* does not surface in clefts to introduce the residue clause (10a), a fact which is unexpected if these are derived in the same way as relative clauses.

(10) CLEFT

a.	[Kápi]$_{FOC}$	xe?	**(*t)**	e	n-s-cw-úm
	coffee	DEM	**(*OBL)**	COMP	1SG.POSS-NOM-make-MDL
	ɬ	qíɬ-t	wn		ɬ snwénwen.
	COMP	awake-IM	1SG.CONJ		DET morning

"I made [COFFEE]$_{FOC}$ when I got up this morning."

RELATIVE CLAUSE

b.	Cwúm	kn	xe?	te	kápi
	make-MDL	1SG	DEM	OBL	coffee

tɬ s-téw=cn-me-s ɬ n-sm?ém
obl.COMP NOM-buy=mouth-MDL-3.POSS DET 1SG.PS-wife
ɬ spi?ẋáwt.
DET day

"I made the coffee that my wife bought yesterday."

Kroeber (1997:388-389, 1999) gives further evidence that clefts are biclausal; the embedded examples below parallel ones noted by Kroeber (1997:388, 404, 1999:265). When embedded, clefts take clause-typing morphology on the focused cleft head, while the verb in the residue clause retains its own clause-typing morphology. This fact suggests there are two CPs present in clefts. In (11), cleft head *swet* 'who' is marked by subjunctive morphology *us*[5] while the residue clause retains its *–emus* extraction morphology. In (12), both the cleft head *pi?éye?* 'one' and the embedded verb *w?xúm* 'have' are marked with nominalization *s–* and possessive clause

[5] Subjunctive morphology is glossed 'conjunctive' in the Interior Salish tradition to avoid confusion with 'subject' in the glosses.

inflection *–s*. Kroeber also notes that both the cleft head and the residue are introduced by complementizers. Again, this suggests that we are dealing with two CPs here.

(11) w?éx kn xe? xʷí?-m tk skʷuléyt
PROG 1SG DEM look.for-MDL OBL.IRL teacher
[CP1 e swét us [CP2 xʷúy k-ex
COMP someone 3.CONJ FUT COMP-PROG
kən-t-Ø-émus ɬ n-céce?]].
help-TR-3O-SUBJ.EXTR DET 1SG.POSS-younger.sister
"I'm lookin' for a teacher that's gonna' help teach my younger sister."
(literally: "I'm looking for a teacher that is the someone that's gonna' help [teach] my younger sister.")

(12) ?éx xe? qe?ním-Ø-Ø-ne [CP1 k s-pi?éye?-s
PROG DEM hear-TR-3O-1SG.TS COMP NOM-one[RED]-3.POSS
x̌u? tk móṣmoṣ [CP2 k s-wʔx-úm-s
just OBL.IRL cow COMP NOM-PROG-MDL-3.PS
xe? e Tóm]].
DEM DET Tom
"I heard that Tom only has one cow."
(literally "I heard that it is only one cow that Tom has.")

Thus, clefts are biclausal, with the cleft head generated *in situ* and not moved from within the cleft clause.

Finally, it should be noted, as Kroeber observes, that clefts are not a special construction in Salish languages:

> [The term 'cleft'] should also not be understood to imply that cleft sentences as defined constitute a distinct construction type in Salish languages. Headless relative clauses are solidly attested in Salish languages in ordinary DP positions other than subject (hence, outside of cleft constructions), and ... Salish languages readily allow nominal expressions to act as predicates even when the subject of the sentence is something not obviously clausal; that "cleft" sentences like the [ones] cited above should exist is simply an automatic consequence of these facts of Salish constituent structure, requiring no special stipulations. [Kroeber 1999: 262]

The examples below illustrate these facts. In (13), the bare noun *sqáqxa* 'dog' acts as the predicate, taking a DP subject *e Hermann*. In (14), the headless relative clause *e punmne* 'what I found' acts as an object argument for the matrix verb 'eat.' Example (15) shows a bare cleft, which simply combines the bare noun predicate of (13) with the headless relative clause argument of (14). Finally, (16) shows the introduced cleft with a DP focus (DPs cannot be

predicates, and so must be introduced by the cleft predicate). Thus, clefts are not special constructions in Salish; however, considerations of syntactic economy would still favour using non-clefted sentences, all else being equal, since clefts involve two CPs instead of one. Thus, clefts are typically reserved for contexts in which the marking of narrow focus is required, and are less frequently employed in wide focus contexts (Koch 2007b).

(13) sqáqx̣a xe? e Hérmann.
dog DEM DET Hermann
"Hermann is a dog."

(14) ʔúpi-Ø-Ø-ne xe? e pún-m-Ø-Ø-ne.
eat-TR-3O-1SG.TS DEM DET find-REL-TR-3O-1SG.TS
"I ate what I found."

(15) [sqáqx̣a]$_{FOC}$ xe? e pún-m-Ø-Ø-ne.
dog DEM COMP find-REL-TR-3O-1SG.TS
"I found a [DOG]$_{FOC}$."
(literally "It was a [DOG]$_{FOC}$ that I found.")

(16) c̓é xe? [e sqáqx̣a]$_{FOC}$ e pún-m-Ø-Ø-ne.
CLEFT DEM DET dog COMP find-REL-TR-3O-1SG.TS
"I found the [DOG]$_{FOC}$."
(literally "It was [the DOG]$_{FOC}$ that I found.")

We can also note that both cleft types abide by the predicate-initial structure of Nɬeʔkepmxcin. Descriptively, there are two elements which "seek out" the initial position in Nɬeʔkepmxcin clauses: the predicate and the focus. In bare clefts (15), the focus *sqáqx̣a* 'dog' is leftmost, and since bare nouns can be predicates, the matrix predicate, again *sqáqx̣a,* is also initial. No further morphology is required. In the case of focused DPs (16), there is a conflict for the leftmost position between the focus and the predicate; but DPs cannot be predicates, and so focused DPs must be introduced by a cleft predicate at the left edge of the clause. In descriptive terms, we can say that it is more important to have a predicate at the left edge than to have the focus at the left edge of the Nɬeʔkepmxcin clause (Koch 2007a, 2007c).

3 Semantics of clefts

In the previous section, we saw that both types of clefts can be used to answer questions introducing new information into a conversation (6-7):

Table 1. *Cleft type and new information focus*

	Bare cleft	Introduced cleft
New information focus	√	√

Now, I examine the semantics of both types of clefts. As already suggested, the structural focus employed by speakers of Nɬeʔkepmxcin resembles clefts in English. Like in English, they are composed of a cleft predicate (overt in the case of introduced clefts, shown in (17)), a cleft head, and a cleft clause or 'residue.'

(17)

Cleft predicate	Cleft head	Cleft clause/residue clause
It is	$[\alpha]_{FOC}$	*that has the property* Π
It is	$[MONIQUE]_{FOC}$	*that I saw.*

ċé xeʔ	[e Moníque]$_{FOC}$	e	wík-t-Ø-ne.
CLEFT DEM	DET Monique	COMP	see-TR-3O-1SG.TS

"I saw [MONIQUE]$_{FOC}$."
(literally "It is [MONIQUE]$_{FOC}$ that I saw.")

Moreover, in English, such structural focus has specific semantic properties: the clefted focus constituent is presupposed to be exhaustive, and to exist (Percus 1997, E. Kiss 1998, Hedberg 2000, etc.). In the following section I will show, following Davis et al. (2004), that these properties do not hold of either introduced clefts or bare clefts in Nɬeʔkepmxcin.

3.1 Non-exhaustivity of Salish clefts

English clefts are interpreted exhaustively (Halvorsen 1978, Horn 1981, Percus 1997:340-1, Kiss 1998:245, Hedberg 2000:904, Davis et al. 2004:107). For Percus, the exhaustivity effect is a presupposition. The cleft head picks out every individual satisfying the predicate in the residue clause of the cleft. As a result, clefts are incompatible with adverbs like *even* or *also*, which presuppose that additional individuals satisify the predicate.

(18) *It is* $[\alpha]_{FOC}$ *that has the property* Π
presupposes $\forall x\ \Pi(x) \rightarrow x=\alpha$ (only α has the property Π)
(Percus 1997:340)

(19) a. ?? It was even JOHN who saw Mary.
b. ?? It was also JOHN who saw Mary. (Percus 1997:341, ft. 9)

A further result is that this presupposition of exhaustivity cannot be cancelled.

(20) It was BILL who played the bagpipes.
?? In fact, it was Bill and Janice. (Davis et al. 2004:107, ex. 15)

However, cleft structures in Salish do not have such a presupposition of exhaustivity. This was shown for St'at'imcets and Straits Salish by Davis et al. (2004). I present data to the same effect from Nɬeʔkepmxcin here. Both introduced clefts and bare clefts regularly take the particles *ʔeɬ ƛ̓uʔ*, meaning

'also.' I begin by showing cases of introduced clefts. In (21), the speaker says she saw a coyote in the mountains, and then continues, using a cleft to assert that she also saw a grizzly. If Thompson clefts were exhaustive (as the second 'literal' translation attempts to indicate), we would expect only the grizzly to have been seen (only the cleft head would have the property of being seen). Then, (21) could only have the interpretation that the grizzly is simultaneously a coyote (see the literal English translation using an English cleft), which is not the reading we find.

(21) Wík-t-Ø-ne xe? e snk̓yáp u cí? u ɬe ... máwntn.
see-TR-3O-1SG.TS DEM DET coyote to there to DET ... mountain.
ʔeɬ ʔe ʔéɬ x̌u? e səxʷsúxʷ.
And CLEFT and even DET grizzly.
"I saw a coyote in the mountains, and a grizzly too."
(lit. ?? "I saw a coyote in the mountains, and it was also a grizzly.")

Similarly, (22) would mean that Thursday is simultaneously yesterday (Friday, since this sentence was spoken on a Saturday), again impossible.

(22) ɬ n-snúk̓ʷeʔ ɬ Tóny, ʔéx xeʔ cwú-m ekʷu
DET 1SG.POSS-friend DET Tony, PROG DEM work-MDL EVID
en ɬ musésq̓t, ʔeɬ ʔe ékʷu ʔeɬ x̌uʔ ɬ spiʔx̣áwt.
in DET Thursday, and CLEFT EVID and even DET day
"Tony, my friend, worked on Thursday, and yesterday too."
(lit. ?? "Tony, my friend, worked on Thursday, and it was also Friday [that he worked].")

Moreover, clefts can occur immediately following discourse that establishes non-exhaustivity – that is, clefts are used to overtly deny any exhaustivity effect.

(23) A: *First the red apples got burned. What got burned after that?*

B: ʔe ékʷu ʔeɬ x̌uʔ e s-kʷlóʔ te épl̓s
CLEFT EVID and even DET STAT-green OBL apple
e ʕʷy-ép.
DET burn-INCH
"The GREEN apples got burned."
(lit. ?? "It was also the GREEN apples that got burned.")

(24) A: *Peter went fishing. Did anyone else go fishing?*

B: c̓é ekʷu ʔeɬ x̌uʔ xeʔ e Jóhn.
CLEFT EVID and even DEM DET John
"John did too."
(cf. ?? "It was also JOHN [that went fishing].")

Sometimes *ʔeɬ ƛ̓u?* gets an 'even' interpretation:

(25) A: *Did everyone eat the food?*
B: heʔáy, c̓é ʔeɬ ƛ̓u? e sqáqx̣a xeʔ
yes, CLEFT and even DET dog DEM
e kən-t-éy-Ø-s e Hérmann. ɬaʔx̣áns xeʔ te smíyc.
DET help-TR-?-3O-3TS DET Hermann. eat DEM OBL meat
"Yes, even Hermann the dog helped. He ate some meat."
(literally ?? "Yes, it was even Hermann the dog that helped.
He ate some meat.")

The following examples show that bare clefts are also not exhaustive in interpretation. If they were, we would expect the subject of (26) to be nearly naked, since the only item that would have the property of being worn would be the cleft head (*a red shirt)*, which is not the case. The bare cleft in (27) uses 'also' and would contradict the previous information that Alice has already found something if it were exhaustive. Example (28) gives a common list form answer - using multiple bare clefts. If bare clefts were exhaustive, they could only have the bizarre interpretation that the squash is simultaneously beets and moose stew, not the reading we get.

(26) A: *What is she wearing?*
B: ʔes-céqʷ xeʔ tk nƛ̓píc̓eʔ
STAT-red DEM OBL.IRL shirt
e s-ʔes-ɬúm-s-t-Ø-s.
DET NOM-STAT-wear-CAUS-TR-3O-3TS
"She is wearing a red shirt."
(lit. !! "It's a red shirt that she is wearing [and nothing else].")

(27) A: *Alice found a small green shirt by the side of the road.*
What did she find next?
B: ʔes-céqʷ tk n -- uh -- nƛ̓píc̓eʔ e spúp̓ns
STAT-red OBL.IRL n-- uh -- shirt DET NOM-find[DIM]-3.POSS
ʔeɬ ƛ̓u?, wéʔe we s-q̓ʷút-s e xẃéɬ.
and even, there to.DET NOM-side-3.POSS DET road
"She also found a red shirt, there beside the road."
(lit. ?? "It was also a red shirt she found, there beside the road.")

(28) A: *What did you make for dinner?*
B: səqʷési e n-s-cw-úm, ʔeɬ ... píṭs,
squash DET 1SG.POSS-NOM-make-MDL, and ... beets,
ʔeɬ *moose stéw* e n-s-kʷúkʷ, ɬ sʕáp.
and moose stew DET 1SG.POSS-NOM-cook, DET evening
"I made squash, beets, and moose stew [for dinner]."
(lit. ?? "It was squash that I made, and ... it was beets, and
it was moose stew that I cooked, for dinner.")

I conclude that neither bare nor introduced clefts in N̓e?kepmxcin carry a presupposition of exhaustivity.

3.2 Lack of an existential presupposition

English clefts also carry an existential presupposition (Soames 1982, Percus 1997, Hedberg 2000, Davis et al. 2004), namely that there exists some individual to satisfy the predicate of the residue. Percus formalizes the presupposition as follows:

(29) In a cleft of the form *It is* $[\alpha]_{FOC}$ *that has the property* Π, there is a presupposition that $\exists x\ \Pi(x)$ (there exists some individual that has the property Π).

(Percus 1997:339)

As a result, Davis et al. (2004:113-4, ex. 26) note that English clefts are not normally acceptable constructions for introducing a character at the start of a story.

(30) ?? Once upon a time, it was a little girl who lived with her grandmother in some woods.

In St'at'imcets and Straits Salish, however, clefts are employed in just such a manner, both in narrative contexts and at the start of a conversation.

Here I give data for N̓e?kepmxcin to show that clefts in that language also lack existential presuppositions. In the focus-oriented framework of this paper, we can say that answers to wide (CP) focus questions (*What happened?*) should be unacceptable if Salish clefts have existential presuppositions. This is because, if all the information in the answer is new information, nothing can be presupposed to exist. The unacceptability of clefts in this context in English is due to the existential presupposition of the residue clause not being satisfied. This is shown in the dialogues below when A questions the existence of a cleftee with the property of the residue clause (31, 32). The unclefted answer, on the other hand, is acceptable since no existential presuppositions are violated (33).

(31) A: What happened?
B: ?? It was a little DOG that an eagle ate.
A: Huh? An eagle ate something?

(32) A: What happened?
B: ?? It was an EAGLE that ate a little dog.
A: Wait a minute!? Something ate a little dog?

(33) A: What happened?
B: An eagle ate a little dog.

In Nɬeʔkepmxcin, however, wide (CP) focus questions can be answered using clefts. The examples below show bare clefts in this context. In (34), the locative *neʔ* 'there' is the bare cleft predicate, while in (35) it is the complex bare nominal *xʷʔít (ekʷu xeʔ) tk séytknmx* 'many people' or 'everybody'. Compare the unacceptable 'literal' English translations; if Nɬeʔkepmxcin clefts carried the same presuppositions, we would expect listeners to challenge the speakers in both (34) (*Hey! I didn't know a fire started under the fruits!)* and (35) (*What?! I didn't know anybody was in town!).*

(34) A: *What happened?*
B: Um, néʔ ekʷu xéʔ k ʕʷy-ép us
um, there EVID DEM COMP burn-INCH 3.CONJ
ne nx̌pénk-s e: ... e s-ɬa-- e ... e sq̓ʷíyt.
in.DET under-3.POSS DET ... DET NOM-eat-- DET... DET fruit
"A fire started under the fruits."
(literally ?? "It was THERE that a fire started under the fruits.")

(35) A: *What was going on yesterday?*
B: xʷʔít ekʷu xeʔ tk séytknmx
many EVID DEM OBL.IRL people
k ʔex n ɬ téwn.
COMP be in DET town
"Everybody was in town."
(literally ?? "It was LOTS of people that were in town.")

Again, I conclude that clefts in Nɬeʔkepmxcin lack existential presuppositions.

However, note that examples (34-35) feature only bare clefts. I have not found any cases in my corpus of recordings of introduced clefts used in a wide focus context. There are some examples, however, in the traditional narrative *The Man Who Went to the Moon* (Thompson & Thompson 1992). In this story, a Nɬeʔkepmx man travels to the moon, where he acquires numerous innovative items to take back to earth. In (36), two old moon people have just handed the protagonist a bow and arrow. Even though there has been no prior mention that something is to be used for hunting, or given to the protagonist, the old people twice use the introduced cleft *c̓e* when they tell him:

(36) c̓e xéʔ e qʷez-t-Ø-és e x q̓áq̓ý-m̓.
CLEFT DEM COMP use-TR-3O-3TS DET PROG shoot[DIM]-MDL
"This here is to use for hunting."
(literally "It is THIS that is to be used for hunting.")
c̓e s-xéʔe he xʷuý eʔwí-nɬəɬ.
CLEFT NOM-DEM COMP FUT 2SG.EMPH-EMPH
"This here is going to be yours."
(literally "It is THIS that is going to be yours.")
(adapted from Thompson & Thompson 1992:216, lines 189-190)

Were there a violation of existential presuppositions in (36), we might expect a confused protagonist to respond, "What? Someone's going hunting? What? Something is going to be mine?" However, no such exchange occurs.

Later, the protagonist becomes lonely for his relatives back on earth. The old people tell him he can go home soon. Then the narrator announces:

(37) ʔe xéʔ ekʷu néʔe ɬ qəɬ-qəɬmín Ø sy-ə́m....
CLEFT DEM EVID there DET AUG-old.person COMP twist.fibre-MDL.
"They say that the old people there were twisting fibres...."
(literally "It was the OLD people there that were twisting fibres...."
(adapted from Thompson & Thompson 1992:218, lines 210-211)

In this case, though there has been no prior mention of anyone twisting fibre or making ropes, the narrator uses an introduced cleft *ʔe*.[6] Only later do we find out that the old people send him home to earth by lowering him on a long rope that they have made.

Thus, introduced clefts also appear to lack an existential presupposition. Nevertheless, introduced clefts seem to be disfavoured in this wide focus situation, at least in conversational speech. Given this asymmetry in the distribution of the two types of clefts in wide focus contexts, we may ask if there are further differences in their use.

3.3 Summary

In this section, I have demonstrated, following Davis et al. (2004) for St'at'imcets and Straits Salish, that both introduced and bare clefts in Nɬeʔkepmxcin lack presuppositions both of exhaustivity and of existence.

In English, these properties have been attributed to the semantics of English determiners. If we conceive of a cleft as a discontinuous definite description, with the focused cleft head intervening between the definite determiner and the cleft clause (Percus 1997, Hedberg 2000), then exhaustivity and a presuppostion of existence follow, since definite determiners carry these presuppositions. Under this analysis, the *it* in a cleft like *It is John that ate my cookie* is a particular spellout of *the*, and the semantics of English clefts no longer has to be stipulated. A rough derivation is illustrated in (38) (see Percus 1997:338) for more details).

[6] We have to assume that the complementizer introducing the cleft residue clause is unpronounced in this case, a phenomena that has been reported elsewhere for other speakers (see footnote 4).

(38) step 1: [The Ø [that ate my cookie]] [is John].
step 2: [The Ø t_k] [is John] [that ate my cookie]$_k$
extraposition of cleft clause
spell-out: [It is John that ate my cookie.

Determiners in Salish, however, differ in their semantics (Matthewson 1996, Gillon 2006), and therefore we would not expect Salish clefts to have the same semantics as English clefts (Davis et al. 2004). However, when Nɬeʔkepmxcin speakers want to express something like presupposed existence, then determiners rather than bare nouns are used (Henry Davis, p.c.; see also the different translations in (15-16)). Hence, the reason that introduced clefts are dispreferred in situations where no existence is presupposed may be due to determiner semantics (a topic beyond the scope of the present paper).

Notice also, however, that the motivation for employing clefts to mark focus is rather different in Salish than in English. If the account in this paper is on the right track, then an English type system recruits structural focus for a specific type of contrast: to mark exhaustivity and existence. In a Salish type system, we could conceive of structural focus as being used to satisfy a discourse prosodic constraint aligning a focus constituent with the left edge of an intonational phrase, and not because the cleft construction provides a special semantics for free (Koch 2007a, 2007b).

In this section, we have seen that, though both types of clefts lack presuppositions of exhaustivity and of existence, introduced clefts are dispreferred in wide focus contexts which would violate the latter presupposition.

Table 2. *Cleft type, focus, and presuppositions*

	Bare cleft	Introduced cleft
New information focus	√	√
Exhaustivity Presupp.	X	X
Existence Presupp.	X	(X)

In the next section, I turn to further differences in the distribution of the two types of clefts. I show that, when contrastive focus of salient individuals is required, an introduced cleft is employed. In addition, various second position clitics or other lexical items in the clause add to the contrastive meaning.

4 Animation task: This and that

Up to this point, we have seen the use of clefts to introduce new information into the discourse (new information focus). We have also seen that both bare and introduced clefts are employed for this purpose. In the last section, I demonstrated that both types of clefts appear to have similar semantic

properties in lacking presuppositions of existence and of exhaustivity. Despite this commonality, however, introduced clefts are rarely used in sentences in which all the information is new (CP focus, or wide focus cases).

In this section, I compare new information focus with a second type of focus, contrastive focus, to determine if there is asymmetry in the use of the two types of clefts.[7] To do this, I employed an experimental task using simple computer animation to generate conversational data for both types of focus. I then counted the frequency of each type of cleft in each condition. I will describe the task and the results in this section. In section 5, I show how this task can be turned from a tool for theoretical linguistics into a tool for learning about how to answer questions.

4.1 Two types of focus: Materials

In this experiment, I presented language consultants with a visual display of two animated computer characters who asked questions about various items. The animations were prepared in Microsoft Powerpoint. The idea was for the speakers to "teach these guys how to speak in N̓e?kepmxcin." The goal was to determine whether a difference in focus type (new versus contrastive) was mirrored in a difference in the type of cleft used. The animations were presented on a 15.75" laptop computer in full screen mode. Consultants wore lapel microphones and their responses were recorded on a Marantz PMD-670 digital audio recorder.

4.1 Two types of focus: Procedure

Consultants watched the display and answered the questions posed by the animated characters. Questions were recorded in Audacity by the elicitor (myself), and then had there pitch raised to make them suitable for animated characters' speech. During the presentation, the elicitor advanced the display after each question had been answered. In one condition, there was a single item displayed on the screen, and the computer character asked "What's this?" (in N̓e?kepmxcin). Consultants responded "That's an X." The 'X' in this case was a new information focus. This is shown in (39) with the item *smiyc* 'steak;' in this case, the answer is a bare cleft.[8] The text in the word balloon corresponding to the question in (39A) and (40A) was not part of the presentation, but is only shown here for expository purposes.

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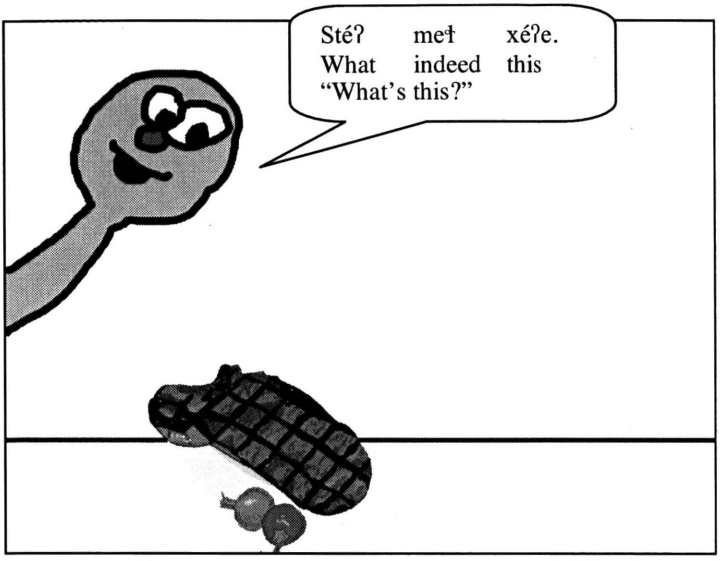
[7] I distinguish between 'new' and 'contrastive' focus for descriptive purposes only, recognizing that we may just need one focus interpretation mechanism to deal with what superficially appears to be two types of focus (see Rooth 1992).

[8] Since there is no residue clause per se, it's not clear that these are actually clefts in the same sense as in sections 2-3. In any case, we are still contrasting introduced cleft predicates with bare NP predicates for their distributional properties in the two types of focus conditions, and I will continue to assume that we are dealing with bare clefts here.

(39) Single item condition: new information focus

A:

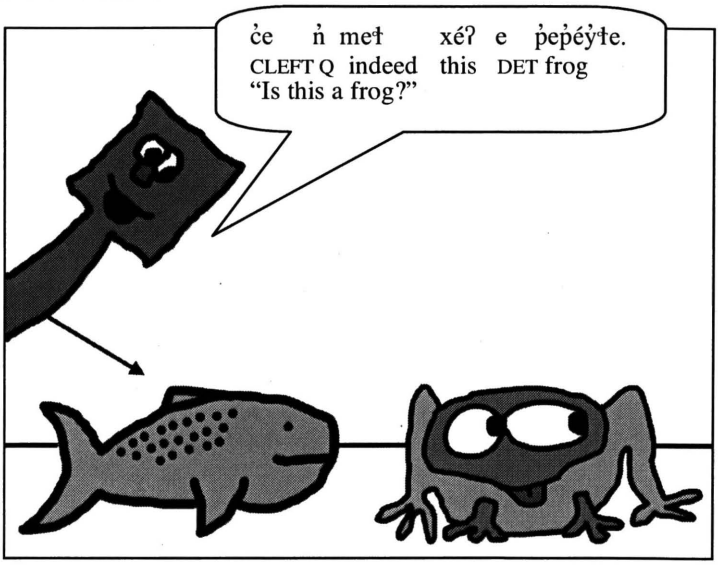


B: Smíyc xé?e.
meat that
"That's a steak."

In the second condition, two items were displayed on the screen. A computer character asked, for example, "Is this a frog?" while pointing at a fish. Consultants responded, "No, THAT's a frog," correcting the character's error. The 'THAT' was a contrastive focus. In this context, a salient, closed set of two items appeared for comparison on the screen (40). At the start of the task, consultants were asked to provide information about both the items on the screen, so that they did not simply correct, for example, the misconceptions about the fish in (40) (*No, that's a fish)*, but also identified the frog (*THAT's a frog).*

In the example in (40B), the answer is in the form of an introduced cleft, using the cleft predicate *?e*. The form of the question in (40A) is also in the form of an introduced cleft, using *c̓e* in this case. However, the questions in the two item condition were asked using both introduced clefts and bare clefts, to counterbalance any priming effects of cleft type used in the answer.

(40) Two item condition: contrastive focus

A: 

B: Tetéʔe ... ʔe xeʔ e p̓ep̓éy̓ɬe.
No ... CLEFT that DET frog
"No... THAT's a frog."

Finally, there were some filler items. In some. the character asked, "Is this an X?" while pointing at the correct item (X); in this case, consultants did not need to express contrast, but merely confirmed the character's guess. In other filler items, characters asked different kinds of questions about animated events (*What's happening here? What is the bear doing? What is the frog eating? etc.).*

The language data was collected during five recording sessions spread out over an eight month period. The digital recordings were transferred to computer and used to transcribe the responses.

The two comparison cases are summarized below; in English the two types of focus are distinguished by different intonation (the location of the nuclear pitch accent differs). The research question explored by this experiment is what distinguishes the two conditions in Nɬeʔkepmxcin – in particular, whether the type of cleft used varies with context.

(41) a. That's an APPLE. [new information focus]

b. THAT's an apple. [contrastive focus]

4.3 Results

Answers were coded for syntactic form in the two conditions of interest (new focus and contrastive focus). There were three syntactic forms used: introduced cleft, bare cleft, and what I will call 'bare cleft plus.' The latter cases had additional contrastive DPs like *the other one* in addition to a bare cleft; sometimes, this other lexical item was the head of the cleft.

Table 3. *Cleft type and focus type*

	This is X. [new focus]	THAT's x. [contrastive focus]
introduced cleft	33 (46%)	41 (73%)
bare cleft	39 (54%)	1 (2%)
bare cleft plus	0 (0%)	14 (25%)

In the new information focus conditions, both cleft types were used in approximately equal number. An example of two different responses to the same question is shown in (42).

(42) A: Sté? meɬ xé?e.
What indeed DEM
"What's this?"

B: Qʷléwe? xé?e. [bare cleft]
onion DEM
"Those are onions."

B': c̓é xe? e qʷléwe?. [introduced cleft]
CLEFT DEM DET onion
"Those are onions."

In the contrastive focus condition, however, introduced clefts were preferred (73%). There was only a single case of a simple bare cleft in this condition. Otherwise, when they were used, bare clefts always contained additional lexical items asserting the existence of a contrast. Sometimes, it was these additional items that were the head of the cleft.

Let's look at some examples. In (43B), (44B) and (45B), overt clefts *c̓e* are used in the final contrastive focus target sentence (prior material in B's answer is shown for completeness). Sometimes the clefted item was an additional contrastive DP, like *e s?ixʷɬ* 'the others' in (44B), or *e peye?* 'the other one' in (45B). The target utterance in the two item condition examples below is identified by TARGET.

(43) A: ċé ṅ xeʔ e sp̓áq̓m. *[pointing at book]*
CLEFT Q DEM DET flowers
"Is this flowers?"

B: Teté? xeʔ k sp̓áq̓ms. spáqʷ xéʔe.
NEG DEM IRL flowers. book DEM
"No, that's not flowers. That's a book."
TARGET: ċé ṁ xʔé e sp̓áq̓m.
CLEFT EMPH DEM DET flowers.
"THIS is the flowers."

(44) A: ċé ṅ meɬ xeʔ e ṣtqólṣ. *[pointing at eggs]*
CLEFT Q CNSQ DEM DET potato
"Are these potatoes?"

B: Teté? xeʔ k ṣtqólṣ-c. Heʔúseʔ xéʔe.
NEG DEM IRL potato-3.POSS. Egg DEM.
"That's not potatoes. Those are EGGS."
TARGET: ċé ṁ meɬ e s-ʔíxʷɬ u cíʔ e ṣtqólṣ.
CLEFT EMPH CNSQ DET NOM-other to there DET potato
"THAT's some potatoes there."
(lit. "It is those OTHERS over there that are potatoes.")

(45) A: ċé ṅ meɬ xeʔ e seplíl. *[pointing at apple]*
CLEFT Q CNSQ DEM DET bread
"Is this bread?"

B: ó, teté? xeʔ k seplíls. éplṣ xéʔe.
oh, NEG DEM IRL NOM.bread-3.POSS. Apple DEM.
"Oh, that's not bread. That's an apple."
TARGET: ċé ṁ meɬ e péye? e seplíl.
CLEFT EMPH CNSQ DET one DET bread
"That other one is the bread."
(literally "It is the OTHER one that is the bread.")

Other morphology, absent in new information focus cases, also surfaced in these contrastive contexts. In all of (43B), (44B) and (45B), we find the emphatic marker *ṁ*, a second position clitic. Though Thompson and Thompson (1995:209) describe emphatic *ṁ* as "rare" and "not completely understood," I find that it is quite common exactly in this contrastive context. Consultants state that a clause without *ṁ* "is ok with just one item," but that a clause with *ṁ* "is for [when you are talking about] two things."

The contrastive demonstrative *xʔé* seen in (44B) also surfaced only in the contrastive focus condition, and never in the new information focus condition. When asked about using this demonstrative instead of the usual *xéʔe* in the simple new information focus condition (with only one item on display),

consultants commented: "what is the other thing you are talking about? You have to say what it is...." Thus, this demonstrative seems to presuppose the existence of another item for comparison.

What Thompson and Thompson (1992:139) call an aspectual marker, *meɬ* of (44B) and (45B) (the 'consequential' CNSQ, in their terms) is used to indicate "change from present situation: anyway, anyhow; despite the evidence, contrary to expectations." Like other morphological items in contrastive focus contexts, this particle may presuppose contrast between situations in some way – the exact semantics of these elements remains a topic for future research.

Now let us examine the bare cleft 'plus' responses in the contrastive focus condition. When bare clefts were used, they always contained additional lexical items (except in one case). In (46B), the prepositional phrase *u ci?* 'over there' and the DP *e s?ixʷɬ* 'the others' make explicit the contrastive context, as does the contrastive conjunction *k̓ém̓ɬ*.

(46) A: c̓é ṅ meɬ xe? e ?e?úse?. *[pointing at potatoes]*
CLEFT Q CNSQ DEM DET egg
"Are these eggs?"

B: *No,* c̓é xe? e peták. ?é xe? e ṣtqóls.
No, CLEFT DEM DET potato. CLEFT DEM DET potato.
"No, these are potatoes. These are potatoes."
TARGET: k̓ém̓ɬ he?úse? u cí? e s-?íxʷɬ.
However egg to there DET NOM-other
"But THOSE are eggs."
(lit. "But it's eggs that are those others over there.")

In (47), the locative predicate *we?* is itself the head of the bare cleft.

(47) A: móṣmoṣ ṅ xé?e. *[pointing at cat]*
cow Q DEM
"Is this a cow?"

B: té?e. Pús xé?e.
No. Cat DEM.
"No. That's a cat."
TARGET: ?eɬ we? e pi?éye? e móṣmoṣ.
and there DET one[AUG] DET cow.
"And THAT's one cow over there."
(literally "And it is there that there is one cow.")

Thus, it seems that simple bare clefts are not suited to contrastive contexts, but only when used in conjunction with other morphemes or lexical items that explicitly encode the semantics of contrast elsewhere in the clause. Introduced clefts, on the other hand, are preferred in contrastive contexts, though

additional additional morphology or lexical items material is typically employed as well.

4.3 Discussion

In this section I reported the results from a series of tasks in which consultants responded to questions posed by computer characters. The goal was to determine whether the two cleft types differed in use in new information versus contrastive focus contexts. While both clefts were equally used in new information focus contexts, introduced clefts were preferred in contrastive contexts. We also observed the use of other emphatic clitics in the contrastive context: emphatic *ḿ*, demonstrative *xʔé*, and aspectual *meɬ*. This underlines an important empirical point: while these emphatic markers may be less common or even non-existent in traditional storytelling texts, they are common in conversational contexts of the type explored here. Thus it is of theoretical interest to collect recordings of different types of speech acts in First Nations languages, including everyday conversational material.

Simple bare clefts were not employed in contrastive focus situations; some bare clefts were used, but only with additional lexical items (DPs like *the others, another one,* PPs like *over there*, and so on) that explicitly encoded contrast. On their own, bare clefts do not seem to be compatible with a contrastive focus context. Thus, we have observed the following properties of the two types of clefts so far:

Table 4. *Properties of cleft types*

	Bare cleft	Introduced cleft
New information focus	√	√
Contrastive focus	X	√
Exhaustivity Presupp.	X	X
Existence Presupp.	X	(X) [rare]

Why are bare clefts not used in contrastive contexts? I will briefly suggest two possible reasons here; the particulars of both these reasons need to be worked out in more detail, a topic I leave to future work.

First. recall that we are focusing the demonstrative in these cases (observe the English "THAT's the bread"). Recall also two generalizations made earlier: Nɬeʔkepmxcin clauses are predicate initial, and focus is as close to clause-initial as possible. Since the demonstratives *xeʔe* and *xʔe*, like DPs, cannot be predicates, they require an introduced cleft predicate when focused. Thus, in introduced clefts, they are still "as left as possible" in the clause, except for the syntactic restriction barring them from initial predicate position; the initial position is occupied by a functional element, the cleft predicate. If bare clefts are used, however, then the bare cleft head – a lexical item – and not the focused demonstrative is in the clause-initial focus position. Thus, introduced clefts better express focus of the demonstrative in these cases. Otherwise, if a bare cleft is used, the wrong element (the bare cleft head) may be interpreted as

the focus at the interface between syntax and phonological form, and between syntax and logical form.

A second reason the bare clefts are dispreferred in the contrastive context may be due to how Salish speakers talk about existing discourse items. Bare nouns tend to be used when talking about new discourse items ('a dog' in (15)), while full DPs (which are used in introduced clefts) are employed when talking about items already established in discourse ('the dog' in (16)) (see Gerdts 1988, Kinkade 1989, 1990, Matthewson et al. 1993, Davis 1994, Roberts 1994, Gerdts and Hukari 2004). Since the noun is already in the discourse in the contrastive condition (i.e. 'salmon' is introduced into the discourse in the question *Is this a salmon?),* it is better to use a full DP than a bare noun when referring to 'salmon.' And, since full DPs cannot be predicates, an introduced cleft must be used.

Having identified contexts of use for the two cleft types in answers, we can now apply our findings to the educational question: how does one answer questions in Nɬe?kepmxcin?

5 Packaging the animation task as an educational tool

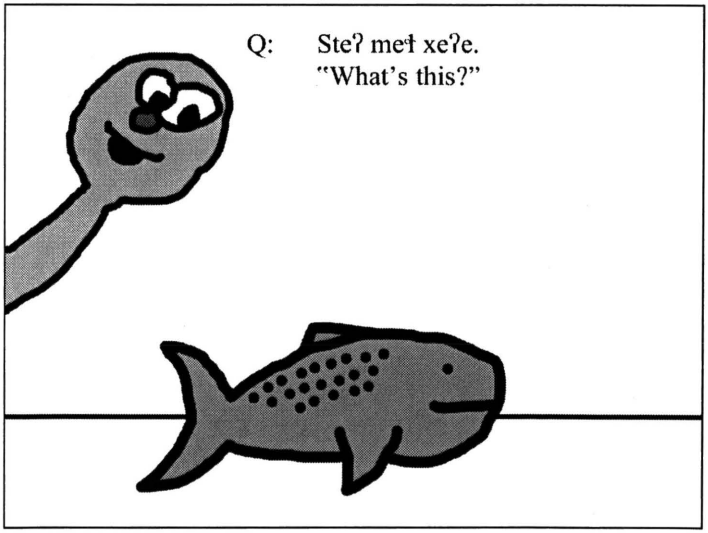
The computer animation task described in section 4 was used to successfully answer the question of theoretical interest (how are the two types of answers to questions in Nɬe?kepmxcin used differently). In this section, I show how these findings could be turned into an educational tool by adding them into the animation task. The animation task, though used for linguistic fieldwork, was designed with learners in mind, with the goal being that little additional work would be needed to turn the task into a useful learning tool (see also Burton 2005, Caldecott & Koch 2007). I describe here the steps taken in this pilot project.

5.1 Adding text and recordings of answers

When consultants responded to the computer animations in section 4, their conversational responses were recorded on a digital audio recorder. Audio files were transcribed, and for each question and answer pair, an individual sound file was created. Next, the answer alone was isolated in a separate sound file for each question and answer pair. This yielded a media file that could be placed in the previously created animations.

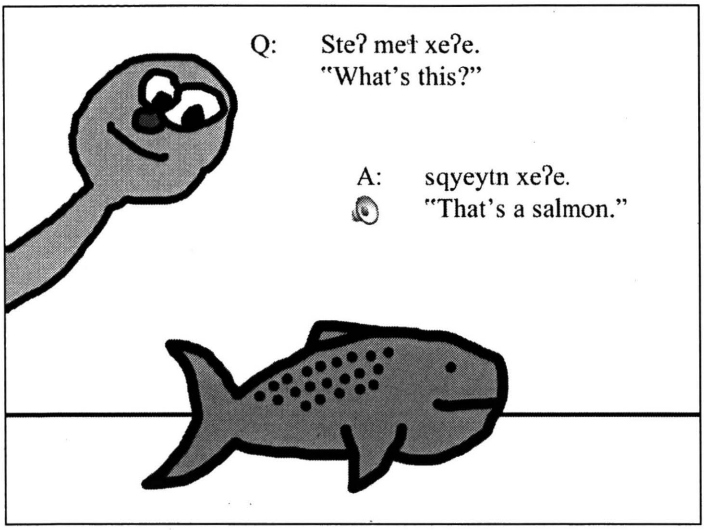
The next step was to return to the computer animation file. First, for each question, I added text corresponding to the question; now learners could both hear the question, and see it visually (48). An additional goal would be to place question sound files as recorded by the language consultants into the animation, so that learners could model both questions and answers based on the speech of fluent speakers.

(48) Adding visual text with question sound file



After each character asks a question, the presentation program pauses. During the recording phase of this project, this pause was where consultants responded with answers. Now, this pause is where the sound files containing the consultants' answers were inserted. A learner watching the animation can click on the stereo speaker icon and listen to the answer when ready. At the same time, the written transcription of the answer appears on screen (49). Again, the learner can both hear and read the response. If desired, the learner can listen to the response again; when ready to move on to the next question, the learner simply clicks the mouse or presses the space bar.

(49) Adding response sound file with visual text

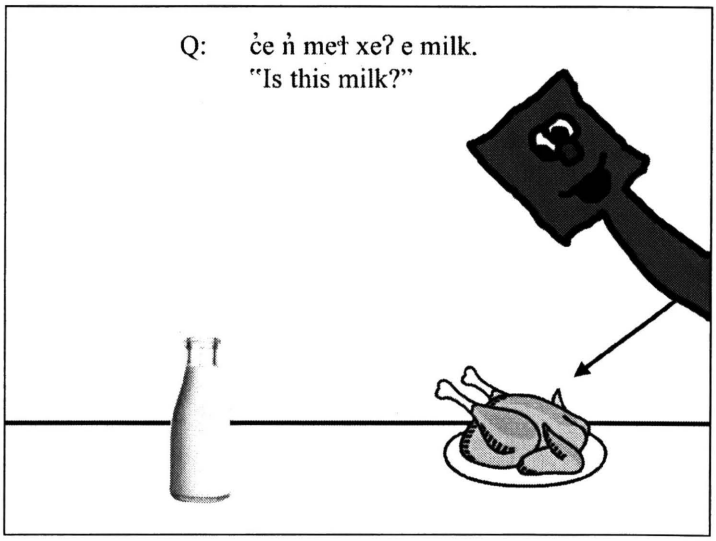


A great advantage of this presentation method is that the context of language use is very clear. In fact, the context that the learner sees is exactly the same context which the original language consultant saw when the recording was made. This means that the bridge from theoretical linguistic fieldwork and transcriptions (which can often be obtuse) to useful educational materials is fairly easily and rapidly implemented (see also Burton 2005 for other multimedia work; Matthewson 2004 on the importance of context in fieldwork).

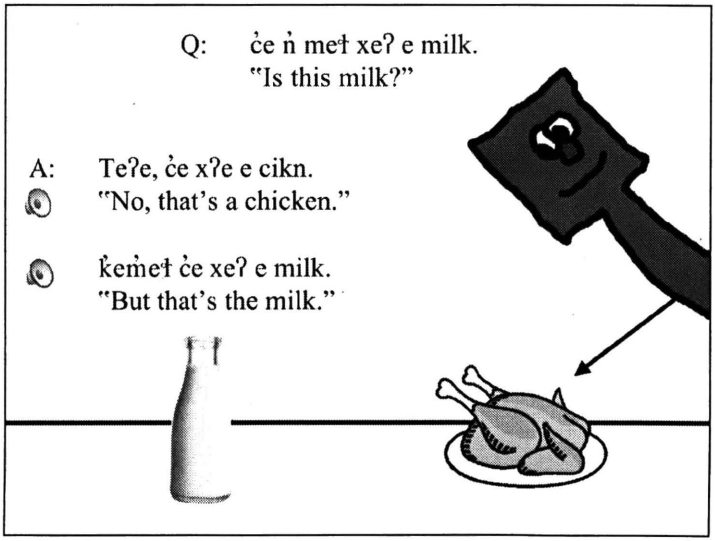
A second advantage is that the user moves beyond learning single vocabulary words in isolation. For example, instead of learning just the word for 'salmon' in (49), the user learns a short but complete sentence *sqyeytn xe?e*, and an appropriate context when to use it.

Let's look at another example of an animation page packaged with answer sound files and visual text for learners. This time, in a contrastive focus context (50), the answer uses an introduced cleft *c̓e* (51). There are two sound files, one for each sentence in the answer. The learner can click on the speaker icon to listen to the sound file corresponding to the answer. Learners can also go back and listen to each sound file again as often as necessary, and then move on to the next page when ready.

(50) Contrastive focus: adding visual text with question sound file



(51) Contrastive focus: adding response sound file with visual text



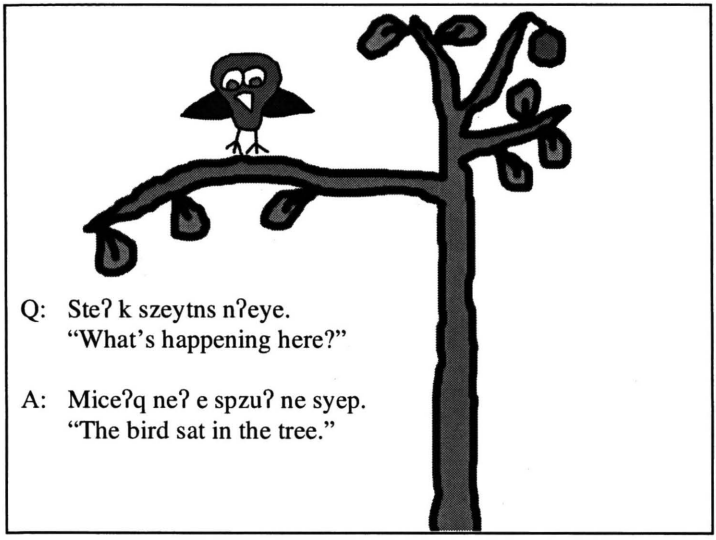
Again, the user learns not just a single word, but a simple phrase *c̓e xe? e* ____, and the context where that phrase is appropriate.

Finally, recall that there were also some filler items in the animation task. These were not of immediate theoretical interest in section 4, because they used questions and answers different from the target forms. However, the filler

items are still of interest to language learners. One example is shown below. In this sequence, a bird flies in and lands on the tree. The consultant responds to the question "What's happening here?" Parts of this conversation are shown below with the relevant animation picture.

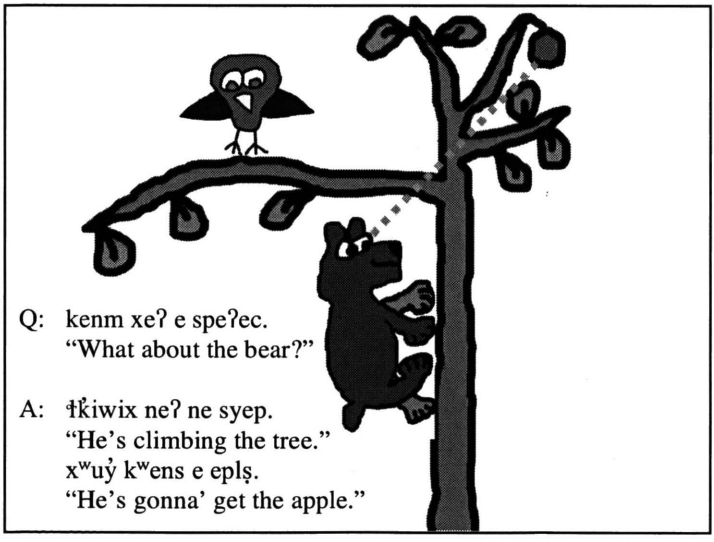
(52) Describing an event

a.



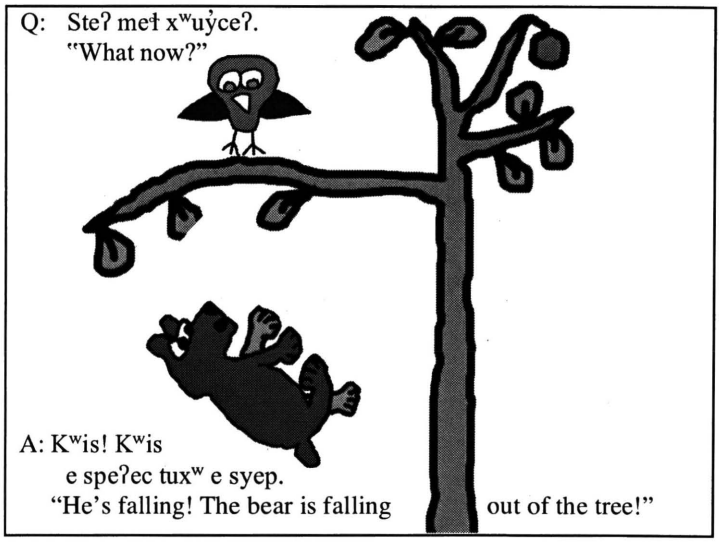
The animation continues with a bear climbing the tree, intending to eat the apple hanging there.

b.



But, the bear's plans go awry:

c.



This example shows that the animation task can be easily adapted to a more complex level of language, since now we are dealing with larger sentences describing more complicated situations. Moreover, filler material in tasks for theoretical research can be created with the needs of learners in mind. In this case, the material was designed to describe events, to supplement the simple object identification (*What's this?)* seen earlier. Again, the responses here offer the user a chance to learn how to use vocabulary items in full sentences.

In this section, I have tried to demonstrate that a tool for theoretical linguistic research (a computer animation task) can be designed for fairly straightforward transfer to educational uses.

6 Conclusion

In this paper, I presented research aimed at bridging the divide between theoretical linguistics and educational needs in First Nations languages.

In theoretical terms, I have examined the two types of clefts that can be used for expressing narrow focus in Nɬeʔkepmxcin. Although both bare clefts and introduced clefts share similar semantics, in that both lack presuppositions of exhaustivity and of existence, I demonstrated that the distribution of these two cleft types varies with context.

First, we saw that introduced clefts are used less frequently in wide focus contexts where no existence has been established; perhaps they have an implicature of existence that is lacking in bare clefts (see also Davis et al. 2004).

Next, I used a computer animation task to determine the use of the two cleft types in new information versus contrastive focus contexts. While both cleft types were used to express new information focus, introduced clefts were

the preferred option for contrastive focus. Bare clefts were not used, unless there were additional lexical items in the sentence that encoded contrast; sometimes these lexical items were the head of the bare cleft themselves. I suggested two possible reasons that bare clefts were not used for expressing contrastive focus: (i) bare nouns tend to describe new discourse elements, not old ones in contrastive contexts, and (ii) since the demonstrative (a second position clitic) is what is focused in the contrastive case (*THAT's a salmon*), it is dispreferred to have another lexical item – the bare noun cleft head – in the clause-initial focus position.

Finally, I described how the animation task used to elicit language data for theoretical analysis can be transformed into an educational tool. This was done by adding the recordings of answers into the animations at the appropriate points, along with visual text for each question and answer. It is hoped that use of such tools for language recording and elicitation will make linguists' transcribed materials more relevant and accessible to language communities.

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