

WH- CLEFTS IN LUMMI*

Eloise Jelinek
University of Arizona

Wh- words in Lummi (Straits Salish), like the quantifiers, show interesting syntactic differences from corresponding expressions in some of the other Salish languages. The purpose of this brief note is to describe the structure of Wh- constructions in Lummi, and to argue that these constructions do not involve Wh- movement or extraction. A survey of Wh- question formation in the related Straits Salish languages Saanich (Montler 1986) and Sooke (Efrat, 1969) shows parallel constructions. In contrast, the Interior Salish languages (Davis, Gardiner, and Matthewson 1993; Gardiner 1998) show many differences. All Salishan languages appear to have "Wh- cleft" constructions, but their properties differ across the language family.

I propose that Wh- words in Lummi, like other roots, are lexical heads of clauses, either main or subordinate. There is no copula in any paradigm in Lummi, and in main clauses Wh- words appear in the sentence initial predicate position, followed by the second position INFL clitic string, which comprises functional projections where Mood, Tense/Aspect, Modality, and the subject pronoun appear. This second position clitic string, including the subject, is not present in the same form in some other Salishan languages.

- 1) a. $wet = sx^W$ WHO=2sgNOM Who are you?
 b. $'əxin = yəx^W = t$ WHERE=CONJ=1plNOM Where are we, [I wonder]?

Type A and Type B clefts. Main clauses based on Wh- roots in Lummi may be followed by an adjoined subordinate clause, in a "cleft" construction. These clefts are of two varieties. In the first, or Type A, the Wh- clause is followed by an adjoined relative clause. Like relative clauses universally, this relative is linked by predication to an argument of the main clause.

2) Type A Wh- clefts: Adjoined Relative Clause

- a. $wet = lə' = \emptyset$ $k^W leŋ-n-oŋət$
 WHO=PAST=3ABS DET see-TRANS-1plACC
 Who was it, who/that_i saw us?
 b. $steŋ = lə' = \emptyset$ $k^W leŋ-n-əx^W$
 WHAT=PAST=3ABS DET see-TRANS-2sgSUBORD SUBJECT
 What was it, that_i you saw_i ?

The pronouns that serve as objects in the Relative clauses are exactly the same as in main clauses (2a; Jelinek 1995). Object pronouns in all clauses are introduced by a "light verb", an overt Transitivity marker. However, the subject pronouns across clause type are different, since relative clauses do not have the full INFL clitic string appearing in main clauses. In relative clauses, the subject is marked by a Subordinate Subject pronoun (2b). The adjoined relative clause is a Determiner Phrase, and contains a gap, a variable bound by the Determiner; the Determiner functions as an iota operator in deriving the relative clause. Wh- words in Lummi cannot serve as relative pronouns, only as predicates. These "internally headed" relatives can have only third person object (2a) or subject (2b) pronominal heads, since only "direct"

arguments may be relativized in Lummi -- there are no "oblique headed" relative clauses.¹ In the examples in (2), there is coindexing between the gap/variable and the Determiner that binds it; this coindexing identifies the head of the relative. Secondly, there is coreference between the third person Absolutive subject of the main clause predicate (the Wh- word) and the head of the following relative; coreference of this kind is a defining feature of relative clauses.

Identical relative clauses may follow other kinds of main clauses, as shown in (3). The fact that these relatives do not appear only in constructions with preceding Wh- roots provides evidence that in (2) the crucial feature is the coindexing of arguments across the main and adjoined clauses, and that there is no extraction or movement of the Wh- word.

- 3) a. $ye' = lə' = \emptyset$ $cə leŋ-n-oŋət$
 go=PAST=3ABS DET see-TRANS-1plACC
 He, left, (the one) that_i saw us.
 b. $snəx^W ət = lə' = \emptyset$ $k^W leŋ-n-əx^W$
 canoe=PAST=3ABS DET see-TRANS-2sgSUBORD SUBJECT
 It_i was a canoe, (the one) that_i you saw_i. (Type A cleft)

In Type B Wh- clefts in Lummi, there is no relative clause, but an adjoined Nominalized clause. This Nominalized clause is also coindexed with a main clause pronoun. Recall that only direct (subject, object) arguments may be relativized in Lummi. Cleft constructions place focus on the initial root. A Type B cleft with a Nominalized clause can be used to focus a referent occurring elsewhere in the discourse as an oblique adjunct ("indirect object") of an intransitive verb. For example, the root *'itən* "eat" is syntactically intransitive. To identify the object consumed, an oblique adjunct may be included (4a). In the focus cleft construction shown in (4b), a Nominalized clause is coreferent with the ABS subject of the main clause.

4) Type B Wh- clefts: Adjoined Nominalized Clause

- a. $'itən = lə' = \emptyset$ $'ə cə s-čeenəx^W$
 eat=PAST=3ABS OBL DET salmon
 He ate (fed on) salmon.
 b. $s-čeenəx^W = yəx^W = \emptyset$ $k^W s-'itən-s$
 salmon=CONJ=3ABS DET s-eating-3POSS
 It's probably salmon, his food/eating. (Type B cleft)
 c. $steŋ = yəx^W = \emptyset$ $k^W s-'itən-s$
 WHAT=CONJ=3ABS DET s-eating-3POSS
 What could it be, his food/eating? (Type B cleft)
 (Or: I wonder what it is, his food?)

All clefts are focus constructions, and Wh- roots have focus. A comparison of (4b) and (4c) shows that the focused root in a Type B cleft need not be a Wh- word. There is no "gap" or variable argument in Nominalized clauses; as opposed to Relative clauses, all direct arguments are overt. The Subject in Nominalized clauses is marked with a Possessive Pronoun, as is commonly seen across languages. Direct Object pronouns, introduced at TRAN, are identical in all clause types.

If the main clause contains a root like *'oŋas*, "give" that is transitivized, the direct object pronoun marks

the animate recipient, and the optional theme (item exchanged) may be expressed in an oblique adjunct (5a). Ex. (5b) shows a cleft, with focus on the item given, followed by a transitive Nominalized clause with a Possessive subject and an Absolutive animate recipient. Since oblique expressions, "indirect" objects, cannot be relativized in Straits, the Nominalized clause must be employed in the cleft.

- 5) a. 'oŋəs-t-θ=lə'=s^W 'ə cə s-čeenəx^W
 give-TRANS-3ABS=PAST=2sNOM OBL DET salmon
 You gifted him (with) the salmon.
- b. s-čeenəx^W=lə'=θ k^W 'ən-s-'oŋəs-t-θ
 salmon=PAST=3ABS DET 2sPOSS-s-giving-TRANS-3ABS
 It was salmon, your gift (to) him.

The following two example sentences were provided by Montler (p.c.). They are from Klallam, a Straits Salish language closely related to Saanich and Lummi. In (6), we see a Wh- cleft, a question about an animate recipient, with the cognate stem 'ə'ŋa-t "give".

- 6) can cə 'ə'ŋa-t-x^W Klallam, Montler p.c.
 WHO DET give-TRANS-2SUBJ
 Who did you give it to?
 [Who was it, that you gifted/gave s.t. (to) _?]

Ex. (6) is a type A Wh- cleft, with an object-headed Relative clause. I assume that the main Wh- clause has a ZERO third person Absolutive subject, since this root also occurs with overt first and second person subjects. The relative clause has a gap corresponding to the direct object, and a second person singular subordinate subject.

Example (7) shows that in order to ask about an item given, it is necessary to use a Type B Wh- cleft, with a Nominalized clause, just as in (5b).

- 7) steŋ cə n'-s-'əŋa-t Klallam, Montler p.c.
 WHAT DET 2GEN-d-give-TRANS
 What did you give him?
 [What was it, your gift (to) him?]

Since oblique "indirect" objects cannot be relativized, the Nominalized clause is used to refer to the object given. Again, I assume a ZERO 3 person ABS subject in the main Wh- clause. The nominalized clause has no gap, a second person POSS (GEN) subject, and the third person ABS recipient is null, as always.²

Demers provides the following Lummi examples of non-Wh clefts:

- 8) niɬ=θ cə swəy'qə' k^W xəč-n-oŋəs
 DEM=3ABS DET man DET know-TRANS-1/2ACC
 That's the man that knows me/you.

In Ex. (8), a Type A cleft, the main clause is headed by the Demonstrative/Locative root *niɬ*. The subject headed relative clause contains the ACC suffix -oŋəs, which is ambiguous between first and second person. To avoid this ambiguity, a type B cleft, employing a nominalized Passive clause, can be used instead.

- 9) niɬ=θ cə swəy'qə' k^W nə-s-xəč-n-ŋ
 DEM=3ABS DET man DET 2POSS-s-know-TRANS-PASS
 That's the man that I am known by.

The Nominalized clause has an explicit first person POSS subject, excluding the ambiguity present in (8). These Passive clefts occur in other Salishan languages in Wh-questions as well.

Lummi, like other Salish languages, has a number of Wh- roots and stems that are more specialized in meaning, such as 'in'ət "say what" and *stanət* "do what". Montler (1991) provides a complete inventory of Wh- roots for Saanich, and Kinkade (1994) gives a comparative diachronic analysis of Wh- roots in Salishan.

"Adverbial" Wh- clefts. There is second important context in which Type B Wh- clefts (those with nominalized clauses) appear in Lummi. Type B clefts appear with Wh- roots that do not question subjects and objects, direct arguments, but rather locative, temporal, purpose or manner adjuncts: "where, when, why, how". This group of Wh- words corresponds to the adverbial Wh- expressions across languages, and thus, like other oblique expressions, cannot be relativized in Lummi. Therefore, Nominalized clauses appear, as in (10).

- 10) 'əxin=lə'=θ k^W ən'-s-leŋ-nəx^W-θ
 WHERE=PAST=3ABS DET 2POSS-see-TRANS-3ABS
 Where was it, that you saw it [your seeing it]? (Type B)

Compare an object-headed Relative Clause Wh- cleft:

- 11) wet=lə'=θ k^W leŋ-n-əx^W
 WHO=PAST=3ABS DET see-TRANS-2SUBORD SUBJ
 Who was it, that you saw? (Type A)

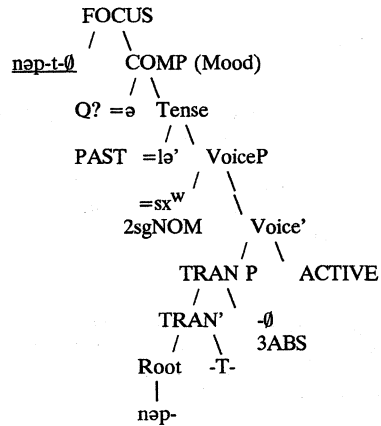
Another example of an "adverbial" Wh- word in a Type B cleft:

- 12) x^Wəniŋ=lə'=θ k^W 'ən-s-ye'
 WHY=PAST=3ABS DET 2POSS-s-go
 Why was it, that you went [your going]?

None of these adverbial Wh- roots can occur in Type A clefts, since they do not question participants, subjects and objects.

Raising. Lummi Predicates raise to a position adjoining COMP, where Mood (Declarative θ, Interrogative, Imperative) is checked (Chomsky 1995). The first element in the INFL clitic string is the Mood marker, which appears in COMP. There is a Question particle ə that appears in yes/no questions, and a less commonly seen Imperative particle, čə.

13)



nəp-t-∅ =ə=lə'=sx^w
 advise-TRAN-3ABS =Q?=PAST=2sgNOM
 Did you advise him?

The root raises to adjoin the TRAN projection and the argument it introduces, which receives structural case. The "control" Transitivity marker *-t-* marks a volitional agent and an affected patient. Third person Absolutive is ZERO, the only null member of the phonological paradigm. In the Active voice, the Transitivity markers must be followed by an internal argument (patient or Ergative agent), and thus when no overt pronoun is present in that environment, a third person ABS argument is presupposed. This complex is followed by the VOICE projection (Active, Passive, Middle, etc.), producing the Predicate. The Predicate is a phonological word, the domain of word stress. This word (or the first word of a complex predicate) raises to the FOCUS projection. The unstressed INFL elements raise to encliticize to the predicate. The subject clitic receives default NOM case, determined by VOICE. The predicate + clitic complex contains all the direct arguments, which are exclusively pronominal affixes, discourse anaphors. There are no free-standing pronouns with which the pronominal affixes could "agree" in the feature of person. Third person Absolutive arguments are specific and referential (unless bound by a quantifier).

In Yes/no questions, the Question Particle is in +WH COMP (14b).

- 14) a. čey=sə'=sx^w b. čey=ə=sə'=sx^w
 work=FUTURE=2sgNOM work=Q?=FUTURE=2sgNOM
 You will work. Will you work?

There are also complex or serial predicates. Only the first word of this complex raises to adjoin COMP (15a); the second remains in situ, providing evidence for the predicate raising analysis. In Ex. (15a) below, there is only one clause. In Determiner Phrases, the Question and Imperative particles are excluded, and both lexical roots in a serial predicate remain below COMP, which is the Determiner (15b).

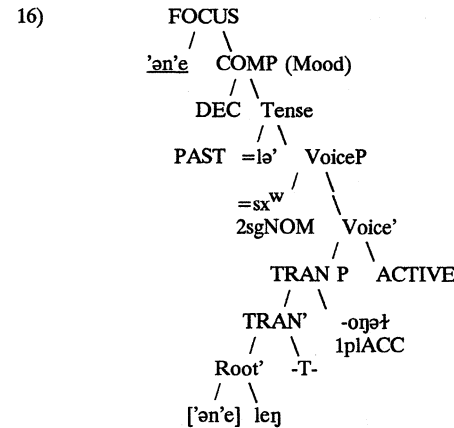
5

2

262

- 15) a. 'ən'e=ə=lə'=sx^w leŋ-n-oŋəʔ
 come=Q?=PAST=2sgNOM see-TRANS-1plACC
 Did you come-(to)-see (visit) us?
 b. cə 'ən'e leŋ-n-oŋəʔ
 DET come see-TRANS-1plACC
 (one) who visits us

With serial predicates, the second word of the predicate remains in situ.



'ən'e=lə'=sx^w leŋ-t-oŋəʔ
 come=PAST=2sgNOM see-TRANS-1plACC
 You came to see (visited) us.

Indirect Questions: Hypothetical clauses. Wh- words can have either a +WH or -WH feature. In main clauses, Wh- words have the feature +WH, and raise to check this feature at a +WH COMP (Ex. 1, 2 above). As lexical heads of Relative Clauses, "WH- words" are -WH, denoting "person, thing, place", etc., as in (17).

- 17) leŋ-n-∅=lə'=sən cə wet
 see-TRANS-3ABS=PAST=1sgNOM DET person
 I saw him, a/the person.

In Hypothetical or Irrealis subordinate clauses, Wh-roots appear with IRR Subject marking. Third person IRR subject is overt. There are no "gaps" in this clause type, as in the Nominalized clauses.

- 18) čte-t-ŋ=sən k^wə steŋ-əs
 ask-TRANS-PASS=1sNOM DET what/thing-3IRR
 I was asked what it was.

6

19) čte-t-ŋ=sən k^wə wet-əs
 DET who/person-3IRR
 I was asked who it was.

20) čte-t-ŋ=sən k^wə 'əxin-əs
 DET where/place-3IRR
 I was asked where it/he was.

Hypothetical clauses can have any lexical root as head, including weak quantifiers (21, 22):

21) čte-t-ŋ=sən k^wə ŋən'-əs
 ask-TR-PASS=1sNOM DET many-3IRR
 I was asked if there were many.

22) čte-t-ŋ=sən k^wə ni'-əs
 DET EXIST-3IRR
 I was asked if there were any.

23) čte-t-ŋ=sən k^wə ye'-əs
 DET go-3IRR
 I was asked if he went.

Hypothetical clauses that do not contain a Wh- root are often interpreted as "if" or conditional clauses. I conclude that these clauses can also have the +WH- feature in a non-finite COMP, as marked by the distinct Irrealis subject marking, and that Wh- roots in these clauses also receive a +Wh- interpretation, as they do in main clauses in Wh- cleft constructions. Hypothetical clauses also appear in environments corresponding to those where subjunctive or other Irrealis inflection occurs across languages:

24) nəp-t-ŋ=sən k^w čey-ən
 advise-TRANS-PASS=1sgNOM DET work-1sgIRR SUBJ
 I was advised to work [that I work].

Thus, there is no clause type in Lummi that is unique to Wh- words in either main clause or indirect questions.

Conclusions. The raising process shown by Wh- words in Lummi is identical to the raising shown by all predicates. The data from Lummi support the findings of Cheng (1991), who identifies a parametric class of languages including Mandarin Chinese, that lack Wh- movement at spell-out, and show question particles and Wh- clefts. These languages also have Wh- words that serve as indefinites, and lack relative pronouns -- all attributes shared by Straits. Georgopoulos (1989) argues that Palauan also confines Wh- words to clefts with variable binding, and Richards (1993) shows that Tagalog has only Wh- clefts. Lummi has no Determiners or clause types, main or subordinate, that are unique to Wh- words, and I conclude that there is no "Wh- agreement" in Lummi.

To summarize: In Lummi, there is a single focused element in any simple clause, the Predicate. In main clauses this focused Predicate is followed by the clitic string. Wh-roots appear in the focus position in all clause types. In Main clauses, MOOD (COMP) may be ± Interrogative [±?], if the question particle or a Wh- word is present. In Hypothetical clauses, Mood is always [+?]; in other subordinate clause types, Mood is [-?]. It is the MOOD of the clause that determines the interpretation of the Wh-word/Quantifier.

- a) If the clause has [+?] Mood and no Wh-root, then it is a yes/no question.
 b) If it has [+?] Mood and a Wh-root, it is a Wh-question.
 c) If it has [-?] Mood, then it is not a question, and any Wh-root can be interpreted as a weak quantifier.

Typological features of Wh constructions in Lummi that follow from argument type:

- a) There are no clauses with two Wh-words, since each root heads a clause.
 b) There are no "Wh-in-situ" constructions, since there are no lexical items in A-positions.
 c) Wh- raising, like strong Quantifier raising and NEG raising, have to take place before spell-out in Lummi, because all roots have to raise to the focus position in their clauses before spell-out.

There is no Determiner quantification in Lummi (Jelinek 1995), and definiteness is unmarked. Context can determine the interpretation. Determiners mark proximity and visibility. Strong quantifiers are unselective adverbials (Lewis 1975); weak quantifiers are clausal predicates. Straits differs in many respects from the Interior Salish languages, where the syntax of quantification in general is quite different, as is the syntax of Wh- words. Wh- clefts seem to be common to the whole Salishan family, but their properties vary across the language family; for example, there are different subordinate clause types (Davis, Gardiner and Matthewson, 1993; Gardiner 1998). The fact that Wh- words in Straits are confined to cleft constructions, that they never occupy A-positions, but serve only as lexical heads of clauses, is consistent with claims advanced by Jelinek (1995), who argues that Straits Salish has the parametric property of Pronominal Arguments: that is, lexical items are uniformly excluded from A-positions in the language. This in turn follows from the absence of Determiner Quantification. Arguments are restricted to discourse anaphors, and referents are introduced or re-identified via clausal predicates.

NOTES

* I thank Andy Barss, Dick Demers, Dwight Gardiner, Dale Kinkade, and especially Tim Montler, for their comments and generous help. None of them is responsible for any errors or omissions.

1. This constraint on relativization is a wide-spread feature of Salishan, which falls low on the Keenan/Comrie Accessibility Hierarchy.
2. See discussion in Montler (1996), who labels constructions like Ex. (7) the Genitive Passive.

REFERENCES

- Cheng, Lisa. 1991. On the Typology of Wh-Questions. PhD. dissertation, MIT.
 Chomsky, Noam. 1995. The Minimalist Program. MIT Press, Cambridge.
 Davis, Henry, Dwight Gardiner and Lisa Matthewson. 1993. A Comparative Look at Wh-Questions in Northern Interior Salish. Papers for the 28th ICSNL, University of Washington, Seattle.
 Efrat, Barbara. 1969. A Grammar of Non-Particles in Sooke, a dialect of Straits Coast Salish. PhD Dissertation, University of Pennsylvania.
 Gardiner, Dwight. 1998. Topic and Focus in Shuswap (Sekwepemctsin). Salish Languages and Linguistics, Ewa Czaykowska-Higgins and M. Dale Kinkade, eds. Mouton.
 Georgopoulos, Carol. 1989. Syntactic Variables: Resumptive Pronouns and A'-binding in Palauan. MS, University of Utah.
 Jelinek, Eloise. 1995. Quantification in Straits Salish. Quantification in Natural Languages, Bach,

- Emmon, Eloise Jelinek, Angelika Kratzer and Barbara Partee, eds., Kluwer, Dordrecht.
- Kinkade, M. Dale. 1994. Salishan interrogatives from a diachronic perspective. Fifth Spring Workshop on Theory and Method in Linguistic Reconstruction. Pittsburgh, Pennsylvania.
- Lewis, David. 1975. Adverbs of Quantification. Formal Semantics of Natural Language. E. L. Keenan, ed., Cambridge University Press, Cambridge.
- Montler, Tim. 1986. An Outline of the Morphology and Phonology of Saanich, North Straits Salish. University of Montana Occasional Papers in Linguistics No. 4.
- Montler, Tim. 1991. Saanish, North Straits Salish. Classified Word List. Canadian Ethnology Service, Paper No. 119, Mercury Series. Canadian Museum of Civilization.
- Montler, Tim. 1996. Some Klallam Paradigms. Papers for the 31st ICSNL, University of British Columbia, Vancouver.
- Richards, Norvin. 1993. Who Moves Where in Which Language? PhD. Dissertation, MIT.