The Syntax of Sluicing in Hän

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1. Introduction.

Ellipsis is a process whereby certain words and phrases may be deleted if they have already been stated earlier in speech. Ellipsis occurs frequently in spontaneous speech and dialogue, and occurs in most if not all of the world’s languages. Many different forms of ellipsis exist and each type has its own rules and grammar as to what constituents may be deleted, and often these rules differ in various languages. These rules for deletion are independent of pragmatic considerations, that is, whether the meaning can be retrieved or not from the context, as shown in the examples of answer ellipsis in English in (1).

(1)  Who is hunting caribou?

(a)  John is hunting caribou.

(b)  *John is hunting caribou.

(c)  John is hunting caribou.

(d)  John is hunting caribou.

In these examples, the answer to “Who is hunting caribou?” may occur as in (a), (c), or (d), while (b) is ungrammatical. While the entire verb phrase may be deleted, it is ungrammatical to delete only the object, though it is conceivable that the meaning could be determined from the response in (b). Thus, ellipsis does not involve the random deletion of syntactic constituents, but has a grammar specific to the language.

Sluicing is one type of commonly occurring ellipsis that is formally defined as the deletion of a tense phrase (TP). The tense phrase minimally includes the subject and the predicate, while only certain constituents that have moved outside of the TP to the specifier of the complementizer phrase (CP) survive. The surviving constituent is referred to as the remnant by Toosarvandani (2008) and is generated within the TP before it is moved to the front of the sentence. These are generally wh-words that are fronted as part of question formation. In English, examples of sluicing will take the general forms as in (2).
(2a) Someone saw a caribou. I don’t know [who [ _ saw a caribou]TP]CP.

(2b) John saw something. I don’t know [what [John saw _]TP]CP.

(2c) John saw a moose. I don’t know [where [John saw a moose _]TP]CP.

(2a) is an example of sluicing with a subject remnant, where the subject wh-word ‘who’ has moved to the front of the clause (the movement is opaque since the subject is usually before the verb and there is nothing intervening here). In (2b), the sluice leaves an object remnant, where ‘what’ has moved from after the verb in object position to the front of the clause. In (2c), an adjunct wh-word ‘where’ is the remnant, and the embedded tense phrase is deleted.

This paper will describe sluicing and sluicing type elliptical constructions as they occur in the Hän language, and consider this data in relation to formal theories of sluicing. Section 2 will outline aspects of Hän grammar that are relevant to sluicing, such as word order, question formation, and topicalization. Section 3 will describe sluicing as it occurs in Hän with both core argument and adjunct remnants. Section 4 will briefly consider the data from Hän in relation to current syntactic theory, and section 5 will consider future research and conclude the article.

2. Sluicing in Hän

2.1. The Hän Language

Hän is a Dene language spoken in eastern Alaska and western Yukon traditionally in the villages of Eagle, Alaska, and Moosehide, Yukon, which is near Dawson City. There are currently about 6-8 speakers of the language, all of whom are over 60 years old. All the data in this study were collected from a single female speaker originally from Eagle, Alaska.

2.2. Word Order and Case

Hän displays fixed SOV word order and case is not marked in the morphology. Thus, swapping the order of core arguments such as the subject and the object causes their case to be reinterpreted, as demonstrated in (3). (3b) then cannot be interpreted as ‘the man is eating the caribou’, but only as ‘the caribou is eating the man’.

(3a) Jëje wèdzeyh j’àw’
The man the caribou 3s.ate
‘The man ate the caribou.’

(3b) #Wèdzeyh jëje j’àw’.
The caribou the man 3s.ate
‘The man ate the caribou.’
Adjuncts, on the other hand, display freer word order, as shown in (4). The initial placement of “in the woods” in (4a) is fine, though the preferred placement is after the subject but before the object as in (4b). Placing an adjunct after the object but before the verb, as in (4c), is acceptable but awkward. Only placing the adjunct after the verb, as in (4d), was judged as ungrammatical.

(4a) \[\text{Tr}'\text{äwh cha] John wëdzeyh näh'y}']
Woods in John caribou 3sg.saw
‘John saw a caribou in the woods.’

(4b) John \[\text{tr}'\text{äwh cha] wëdzeyh näh'y}']
John woods in caribou 3sg.saw
‘John saw a caribou in the woods.’

(4c) ?John wëdzeyh \[\text{tr}'\text{äwh cha] näh'y}']
John caribou woods in 3sg.saw
‘John saw a caribou in the woods.’

(4d) *John wëdzeyh näh'y}'] \[\text{tr}'\text{äwh cha]}
John caribou 3sg.saw woods in
‘John saw a caribou in the woods.’

2.3. Question Formation

Unlike in English, where wh-words are moved to the front of the sentence to produce a question, Hän is wh-in situ, leaving core argument wh-words where they originate and are assigned case. This is shown in (5). (5a) is the base sentence with no question word. In (5b), ‘who’ replaces ‘John’ and remains in subject position. In (5c), ‘what’ replaces ‘caribou,’ and remains in object position. Any attempt to move the object wh-word to the front of the sentence, as in (5d), results in a sentence in which the moved object is can only be interpreted as the subject.

(5a) John wëdzeyh 3s.näh’y]’
John caribou saw
‘John saw a caribou.’
Adjunct wh-words, however, display much freer word order, as shown in (6). This pattern parallels the placement of non-interrogative adjuncts as shown in (4). Once again, placing the adjunct before the verb is acceptable, as in (6a), though the order in (6b), where the wh-adjunct is between the subject and the object, is preferred. Placing the wh-adjunct after the object but before the verb is also acceptable as in (6c), but it is ungrammatical to place it after the verb as in (6d).

(6a) [Ji ha] John wëdzeyh į̀w’?  
What for John caribou 3s.ate  
‘Why did John eat the caribou?’

(6b) John [ji ha] wëdzeyh į̀w’?  
John what for caribou 3s.ate  
‘Why did John eat the caribou?’

(6c) John wëdzeyh [ji ha] į̀w’?  
John caribou what for 3s.ate  
‘Why did John eat the caribou?’

(6d) *John wëdzeyh į̀w’ [ji ha]?  
John caribou 3s.ate what for  
‘Why did John eat the caribou?’
Topicalization is a process of bringing important information to the front of a sentence, and is the only means of core argument constituents appearing in non-canonical positions in Hän. Through topicalization, an object may appear before a subject, however the topicalized object must be marked within the verb phrase with a resumptive pronoun. Compare (7a) and (7b) below. (7a) is a typical sentence with SOV order. If the object, ‘berries,’ is left inside the TP along with a resumptive pronoun, the sentence cannot yield intended meaning. However, when the object ‘these berries’ appears before the subject, the incorrect interpretation can occur with a resumptive object pronoun remaining inside the TP as in (7c). If the resumptive pronoun is omitted but the object occurs before the verb, the sentence cannot mean what was intended (7d).

(7a) John jeyy j’ày
John berries 3s.ate.
‘John ate the berries.’

(7b) #John jeyy yi’ày
John berries 3s.ate.3s
‘John ate the berries.’
(must be ‘John, the berries ate him.’)

(7c) Ji jeyy John yi’ày
These berries John 3s.ate.3s
‘These berries, John ate them.’

(7d) #Ji jeyy John j’ày
These berries John 3s.ate.
‘These berries, John ate them.’
(must be “These berries ate John.”)

Topicalization can also occur with argument question words, as shown in (8). While this gives the appearance of wh-movement, the motivation is clearly topicalization, since the same syntactic rules apply and the object must be marked with a pronominal prefix on the verb inside the TP. In (8a), the object wh-word itself is placed before the subject while a resumptive pronoun occurs as a verb prefix. In (8b), the object is focused with a question word occurring as the subject, where once again the object must be marked pronominally.

(8a) Ji tr’àyh cha John yënoh’j
What woods in John 3s.saw.3s
‘What did John see in the woods?’
3. Sluicing in Hän

3.1. Core Argument Pseudo-Sluicing

Constructions that appear to be sluices built on core argument (subject or object) remnants can occur in Hän as shown in (9). Two possibilities occur. In (9a), the speaker inserted a dummy ‘do’ verb (/dayzhäk/) in place of the verb in the original sentence. This was the first translation given of the sentence “Do you know who?” suggesting it is preferred construction. In (9b), the sluiced sentence may occur with a ‘be’ verb such as /jinch’e/, ‘it is/was.’ In either case, the verb in the embedded clause, /dayzhäk/ or /jinch’e/, could be omitted (resulting in the same surface sentence), although the consultant suggested it was only acceptable if the listener was following closely and the construction with the verb remaining was preferable. A similar pattern occurs with object remnants as in (9c), although only /jinch’e/ can occur as the verb.

(9a) Jëje [wëdzeyh j’ày]. Do ?(dayzhäk) yä hindey?
    Man caribou 3s.ate Who 3s.did QUES 2s.know
    ‘A man ate a caribou. Do you know who (did it)?

(9b) Jëje wëdzeyh j’ày. Do ?(jinch’e) yä hindey?
    Man caribou 3s.ate Who (it) 3s.was QUES 2s.know
    ‘A man ate a caribou. Do you know who (did it)?

(9c) John nun tr’äwh cha näh’j’. Ji ?(jinch’e) hishdey ko.
    John animal woods in 3s.saw what it was 1s.know NEG
    ‘John saw an animal in the woods. I don’t know what (it was).’

This pattern suggests that these constructions are not true sluices, but pseudo-sluiices. Pseudo-sluiices are formally defined as sluice-type constructions that are derived from truncated cleft constructions where the copula ‘be’ is omitted (Merchant 2001). Copula deletion is common in Hän as shown in (10a). Thus, the sluice-type construction that occurs in (9c) can be derived from (10b), where the entire CP, and not a TP, is deleted.
(10a) Ji sh-kè’ (jinch’e)  
This my-foot is.3s  
‘This is my foot.’

(10b) Ji  (jinch’e) [näh’i] CP hishdey ko  
what 3s.is 3s.saw 1s.know NEG  
‘I don’t know what it is that he saw.’

3.2. Adjunct Sluicing

Hän also allows sluiced constructions built on adjunct remnants. In these cases, the consultant provided sluices without copulas, as shown in several examples in (11).

(11a) John wëdzeyh ē’āw. Ji ha wishdey ko  
John caribou 3s.eat. What for 1s.know NEG  
‘John is eating the caribou. I don’t know why.’

(11b) John zho dhohtsày. Ji he wishdey ko  
John house 3s.made What with 1s.know NEG  
‘John made a house. I don’t know with what.’

(11c) John jëju näjē’h’i. Njè wishdey ko  
John moose 3s.spotted Where 1s.know NEG  
‘John spotted a moose. I don’t know where.’

Ellipsis involving core wh-arguments showed a preference for resulting in a truncated cleft construction ((9b) and (9c), when /jinch’e/ remains) as opposed to a pseudosluice ((9b) and (9c) when /jinch’e/ is omitted), though the latter seemed possible as well. Adjunct wh-words do not, however, merely display a preference for the opposite--- instead, the fact that the examples in (11) occur without a copula derives from the fact that the examples in (11) are not examples of pseudosluices, but in fact, are true sluices. This is evidenced by the crucial fact that adjunct wh-words in at least some cases may not occur as the pivot of a pseudocleft, as shown in (12). In this example, the ‘be’ verb /jinch’e/ cannot be inserted, meaning the sluice in (12) cannot be built off a truncated cleft, but is instead TP deletion.

John lake to 3s.walks What for (it) is 1s.know NEG  
‘John is walking to the lake. I don’t know why.’
4. Analysis and Discussion

Adjuncts and arguments appear to be patterning differently in Hän, where true sluices can occur with adjunct wh-words as remnants, but only pseudo-slui\textsuperscript{c}cing can occur with core argument wh-words. So what is different about core arguments and adjuncts that would cause them to pattern differently in these constructions?

As was discussed in 2.2, Hän, like most other Dene languages, displays fixed SOV word order. This is even the case in questions (see section 2.3), where subject and object question words remain \textit{in situ}. The only way core arguments could appear in non-canonical positions is through topicalization (see section 2.4). However, recall that a resumptive pronoun was required to occur within the TP. This suggests that subjects and objects can only receive case by occurring in their designated positions within the TP.

Adjuncts, by contrast, display much freer word order, and seemed able to be placed in about any location except for after the verb, whether in declarative sentences (see the examples in (4)), or in interrogative sentences as wh-words (see the examples in (6)). The data therefore suggests that adjuncts show no canonical position where they are generated and then move, but rather, may be base generated in a number of places. If the adjunct is base generated in a position before the subject, it then lies outside of the TP and can survive TP deletion when a true sluice occurs.

This analysis is somewhat problematic for cross-linguistic accounts of sluicing. Toosarvandani (2008) describes sluicing as a process of movement followed by deletion. Thus, sluicing is theorized to be impossible in a language which displays no wh-movement, where the remnants cannot move out of the TP before it is deleted. This is precisely the reason why sluices built on core argument remnants cannot occur, since the subject and object must remain \textit{in situ}. Even in the case of topicalization, a pronoun must be left inside the TP, and presumably pronounced, in order to assigned the topic case. On the contrary, because adjuncts can be base generation in a variety of locations, including outside the TP, sluicing can occur while leaving an adjunct wh-word as a remnant.

5. Future Research and Conclusion

Future research on the topic of sluicing will involve more speakers of Hän and will also investigate the patterns of sluicing in other Dene languages. Additionally, patterns of use of sluicing within casual speech and dialogue will also be investigated. More complex examples of sluicing, such as when movement may occur from within embedded clauses (e.g., ‘John said that Mary ate something but I don’t know what John said that Mary ate _ _ _ .’) should also be elicited. This may be important as Rice (1989) suggests that wh-adjuncts undergo movement in Slavey due to their inability to be extracted out of an embedded sentence. Further research may also
look at the difference between direct and indirect discourse verbs, as Rice (1989) also indicates that these display different structural differences in Slavey.

In summary, Hän exhibits sluicing-type constructions with both core argument and adjunct wh-word remnants. Because core arguments cannot be extracted outside of their TP, only pseudosluicing is available as an elliptical construction, where the copula is omitted in a truncated cleft construction. Adjuncts, however, show evidence that they cannot be derived from such cleft constructions and demonstrate true sluicing, though this may occur through base-generation of the adjunct outside the TP.

6. Bibliography

