Selection and complement clause size in Washo

Introduction. In Washo (a highly-endangered Native American isolate spoken around Lake Tahoe in California/Nevada, USA), the complements of propositional attitude verbs come in two varieties, which differ in their morphological make-up as well as semantic properties. Factive complements are formed through clausal nominalization by an overt D head *-ge* ('REL'), and surface with the independent mood marker *-i* as in (1). Meanwhile, non-factive complements do not take nominalization, and appear instead with the dependent mood marker *-aʔ*, as in (2).[1]

(1) [∅-háʔaš-**i**-š-**ge**] di-hámu-p'á-yi
    3-rain-IND-SR-REL 1-feel-nonsense-IND

    '*I forgot that it rained.*'   factive complement clause

(2) Béverli [démlu di-begúweʔ-é:s-**aʔ**] ∅-hámu-yi
    Beverly food 1-buy-NEG-DEP 3-think-IND

    '*Beverly thinks that I didn't buy the food.*'   non-factive complement clause

Hanink and Bochnak (2017) argue that factivity in Washo arises from the presuppositional contribution of the nominalizer *-ge*, lending cross-linguistic support to Kastner's (2015) proposal that factive complements contain a covert D in English, which is overtly realized in Washo.

Claim. In this abstract, we adduce novel language-internal evidence that the two types of complement clauses differ further in their size, building on the long-established literature that the complements of attitude verbs differ cross-linguistically (Kiparsky and Kiparsky 1970). Factive complements in Washo not only have a D layer, but also a C layer that is not present in non-factive complements, whose largest projection is the MoodP. Evidence revealing this structural distinction is two-fold. First, only complement clauses of the nominalized type may contain switch-reference marking; second, it is likewise only these clauses that may host *wh*-expressions in embedded interrogatives. The data contribute not only to the discussion on clause selection cross-linguistically, but place Washo in the class of languages that exhibit *size restructuring* in embedded clauses (Wurmbrand 2015), reducing non-factive complements from CP to MoodP.

Switch reference. The switch reference (SR) marker *-š* surfaces in a subordinate clause when the subjects of the two clauses are non-identical (Jacobsen 1964, 1981). However, we observe that SR does not appear in non-factive complements clauses, even when the subjects of the two clauses are distinct, see (4). SR does appear in factive complements where expected (see (3)).

(3) [Emily t'-íšim-aŋaw k'-éʔ-**i**-*****(**š**)-**ge**] l-ášaš-é:s-šemu-yi
    Emily NMLZ-sing-well 3-be-IND-SR-REL 1-be.ignorant-NEG-really-IND

    '*I really know that Emily is a good singer.*'   SR in factive clauses

(4) [di-p'áyt'i-gim-uweʔ-t-**aʔ**-(*****š**)]   ʔ-í:d-i
    1-play-go.out.from-hence-INT.FUT-DEP(*-SR) 3-say-IND

    '*She said I could go play.*'   no SR in non-factive clauses

    Building on Finer (1985) and Watanabe (2000), Hanink and Arregi (2017) argue that SR in Washo is hosted high in the clausal periphery: in C. Given this generalization, the data in (3)-(4) suggest that factive clauses in Washo contain a C layer, but non-factive clauses do not. Importantly, it is not the case that *-aʔ*-marked clauses can never appear with SR. Temporal adjunct clauses also appear with dependent mood *-aʔ*, but do have SR marking where expected, as in (5). This indicates that the lack of SR has to do with the particular syntactic environment of the embedded clause, and is not a property of the dependent mood marker in and of itself.

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[1]Glosses: DEPendent mood; DURative; INDependent mood; INT.FUT: intermediate future; NEGation; NMLZ: nominalizer; Q: question marker; REC.PST: recent past; RELative marker; SR: switch reference.

(5) [l-émlu-**yaʔ-š**] ʔ-í:meʔ-leg-i
1-eat-DEP-SR 3-drink-REC.PST-IND
'*While I was eating, he was drinking.*' temporal adjunct clause with SR

Embedded interrogatives. Another difference between factive and non-factive complements is the (in)ability to host wh-expressions. In addition to internally-headed relative clauses (Jacobsen 1981; Peachey 2006; Hanink 2016), *wh*-expressions in Washo remain in-situ in embedded interrogatives. As shown in (6)-(7), embedded wh-words may participate in embedded interrogatives selected by factive verbs, while they are not grammatical in non-factive clauses.

(6) [Adele dawpápɨl **húŋa-t'eʔ-hé:š** ∅-galám-i-š-ge] ʔ-ášaš-é:s-i
Adele flower what-kind-Q 3-like-IND-SR-REL 3-be.ignorant-NEG-IND
'*(She) knows which flower Adele likes.*' *wh* in factive clause

(7) * Emily [Adele dawp'áp'ɨl **húŋa-t'eʔ-hé:š** ∅-galám-aʔ] ∅-hámu-guyú:g-i
Emily Adele flower what-kind-Q 3-like-DEP 3-think-DUR-IND
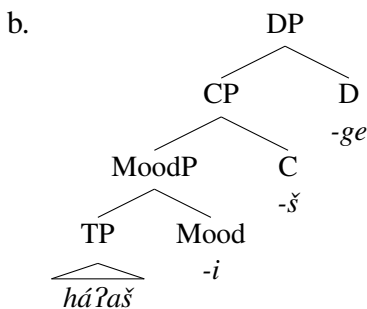Intended: '*Emily wonders which flower Adele likes.*' **wh* in non-factive clause

Treatments of *wh*-in-situ propose either that the *wh*-expression undergoes covert movement to Spec CP, or that an operator high in the clause (*Q*) binds it in its base position (see Reinhart 1998 for an overview). Under either type of approach, the data in (6)-(7) suggest that factive complements contain a C layer that either triggers covert-movement or a Q operator, which is lacking on the other hand in non-factive clauses, explaining their inability to license *wh*-words.

Structures. In order to explain these facts, we propose that the structure of factive complements consists in an entire CP nominalized by a D-layer, while the structure of non-factive complements is a mere MoodP. The following trees give the structures for (1) and (2), respectively:
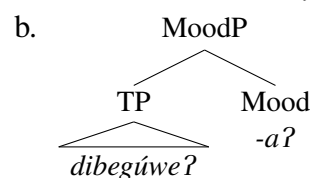
(8) *Factive complements:* DP
a. …∅-háʔaš-**i-š-ge**
3-rain-IND-SR-REL
'…*that it rained.*'
b.

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            DP
          /    \
        CP      D
       /  \    -ge
   MoodP   C
   /  \   -š
  TP  Mood
 /\    -i
háʔaš
```

(9) *Non-factive complements:* MoodP
a. …di-begúweʔ-é:s-**aʔ**
1-buy-NEG-DEP
'…*that I didn't buy the food.*'
b.

```
        MoodP
       /    \
      TP     Mood
     /\      -aʔ
  dibegúweʔ
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Importantly, this clausal reduction is consistent with the claim that size restructuring is available cross-linguistically (Wurmbrand 2015). That restructuring is at play is further evidenced by the contrast between selected clauses headed by the dependent mood marker *-aʔ* (2, 4) and adjunct uses with this marker (5); the size difference is only apparent when these clauses are selected for. As illustrated moreover by (2), non-factive complements remain intraposed, a characteristic not shared by larger nominalized clauses, which strongly prefer to be fronted (Jacobsen 1981).

Conclusion. In sum, propositional attitude verbs in Washo differ in their selectional properties. Factive verbs obligatorily select for nominalized CPs, while non-factive verbs select only for MoodPs. While the selectional difference correlates in the choice of mood marker, the size of the clause varies in these complements as well: In addition to these selectional differences, the Washo data display a restructuring effect in the fact that selected complements of factive verbs are obligatorily reduced to MoodPs: Washo verbs select for DP or MoodP, but never CP.

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