

SCRAMBLING-DERIVED SLUICING-LIKE CONSTRUCTIONS: EVIDENCE FROM BURYAT*

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1 Introduction

One of the most widely-discussed questions on sluicing is what strategies do different languages use to arrive at similar surface strings. According to Ross (1969) and Merchant (2001), constructions as in (1) are derived via *wh*-movement and the following deletion of the TP. However, there are many languages which presumably do not have *wh*-movement (overt or covert) at all and at the same time have constructions, that look like sluicing.

- (1) Mary has bought me something for Christmas, but I don't know what.

Following Paul and Potsdam (2012), the notion of (genuine) sluicing will be used for the constructions that arise from *wh*-movement and TP-ellipsis. Constructions, which are surface-similar to the one presented in (1), but are derived in a different way, will be referred to as sluicing-like construction (SLCs).

In this paper, I examine the case of the Buryat language. Buryat is also a *wh*-in-situ language, and it exhibits SLCs, as shown in (2).

- (2) dugar xəzə:-b-da: pariʒ so: bai-ga:-n ba xəzə hana-na-ɣui-b.
Dugar when-Q-PTCL Paris in be-PRT1-3 and when remember-PRS-NEG-1
Dugar has been in Paris once, but I don't remember when.

I will consider a number of possible analyses, which have been previously suggested in the literature on SLCs in *wh*-in-situ languages, and propose an alternative approach for the Buryat.

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2 Sluicing in Buryat

In Buryat we find SLCs that show some signature properties of genuine sluicing. For instance, they exhibit full case connectivity (3), which indicates that the remnant originates in a full clause. Also, postpositions must be pied-pieped in accordance with the general pattern in Buryat (4); this means that SLCs obey the usual constraints on displacement.

- (3) badma xən-də=ʃʲə-b bələg ʉg-ə:
 Badma who-DAT-FC-Q gift.ACC give-PRT1
 təjəd bi mədə-nə-gui-b xən-də/ *xən/ *xən-əɪ.
 but I know-PRS-NEG-1 who-DAT who.NOM who-INSTR
 Badma gave somebody a present, but I don't know who.

- (4) a. ʉstər dugar nam-da nəgə xən tuxai honʲi:n-əi xɛ:r-ʉ:
 yesterday Dugar I-DAT some man about news-ACC tell-PST1
 xarʲin xən *(tuxai) mart-a:-d bai-na-m.
 but who about forget-PST1-CONV be-PRS-1SG
 Yesterday, Dugar told me news about some man, but I forgot about who.
- b. *ju:n ʉstər dəbtər də:rə xəbt-ə:-b?
 what yesterday notebook at lie-PST1-Q
 What did the notebook lie on yesterday?
- c. ju:n də:rə ʉstər dəbtər xəbt-ə:-b?
 what at yesterday notebook lie-PST1-Q
 What did the notebook lie on yesterday?

Next, possible linear positions of the remnant correlate with those of the full embedded clause. Both the sluice and the embedded clause may appear in front of the matrix clause, between the matrix subject and the matrix verb, or after the matrix clause. This fact suggests that wh-phrases in SLCs originate from regular embedded clauses.

- (5) a. dugar xən-də-b-da: bəʃəg əlʲgə:g-ə:
 Dugar who-DAT-Q-PTCL letter.ACC send-PRT1
 xarʲin xən-də bʲi mədə-nə-gui-b.
 but **who-DAT** I know-PRS-NEG-1
 Dugar has send somebody a letter, but I don't know whom. (a=b=c)
- b. ... xarʲin bʲi xən-də mədə-nə-gui-b.
 c. ... xarʲin bʲi mədə-nə-gui-b **xən-də**.
- (6) a. [badma ər-ə: gəʒə] sajana mədə-nə.
 Badma come-PST1 COMP Sajana know-PRS
 Sajana knows that Badma came. (a=b=c)
- b. sajana [badma ər-ə: gəʒə] mədə-nə.
 c. sajana mədə-nə [badma ər-ə: gəʒə].

Buryat SLCs have one significant property. Namely, Merchant's COMP-generalization can be violated in Buryat. According to that generalization, in sluicing the head C is always null. However, in Buryat both the complementizer *gəʒə* and the question particle *-b* may appear optionally along with the wh-phrase.¹

- (7) *sajana xəm=da: naha bar-a: gəʒə du:l-a:-d*
 Sajana who=PTCL age end-PST1 COMP hear-PST1-CONV
xən || xəm (=xən-b) (gəʒə) mədə-nə-goj.
 who who who-Q COMP know-PRS-NEG
 Sajana heard that somebody died, but she doesn't know who.

2.1 Cleft based analysis

The reduced cleft analysis has been previously suggested for a number of wh-in-situ languages like Japanese (see Merchant 1998 a.o.). According to it, wh-phrases in SLC do not originate in a regular question, but rather in a clefted question.

In this section I demonstrate that this analysis does not fit the Buryat data. The cleft construction is demonstrated in (8).

- (8) *ənə badma ʃud-ə: səbərle-hən-(i:nʃ) bai-na.*
 it Badma tooth-REFL clean-PFCT-3 be-PRS
 It was Badma, who brushed his teeth.

To begin with, the cleft analysis is not able to account for the COMP-generalization violation (as shown in (8), clefts do not include complementizer) and the parallelism between the linear position of the embedded clause and the sluice.

Next, it is not possible to have multiple foci at once (9). Hence, SLCs with multiple remnants (10) cannot be accounted for if we adopt the cleft analysis.

- (9) **ənə ojuna-da nom-u:d tʃingis ugə-xən-(i:nʃ).*
 it Ojuna-DAT book-PL Chingis give-PFCT-3
 It was to Ojuna books that Chingis gave.

- (10) *sajana xən-də-b=da: ju:-b=da: bələgl-ə:*
 Sajana who-DAT-Q=PTCL what-Q=PTCL give-PST1
xarʃin bʃi hana-na-gui-b xən-də ju:.
 but I know-PRS-NEG-1 who-DAT what
 Sajana gave something to someone, but I don't know who what.

¹Note, that in questions with a verbal predicate the question particle can only appear on the verb, and not on the wh-phrase.

- (i) **jamar maʃina-b bair ab-a:-(b)?*
 which car-Q Bair buy-PST1-Q
 Which car did Bair buy?

In addition, adjuncts cannot be pivots in the cleft. In Buryat SLCs, however, it is possible for the remnant to be an adjunct, as demonstrated in (1).

- (11) [??] ɛnɔ ustər sajana zurag zura-han-i:n^j bai-na.
 it yesterday Sajana picture.ACC draw-PFCT-3 be-PRS.
 It was yesterday when Sajana drew a picture.

2.2 Genuine sluicing

In Gribanova and Manetta (2016) it is suggested that at least in some wh-in-situ languages SLC may be an instance of genuine sluicing. Hindi-Urdu might be one of them. Gribanova and Manetta claim, that in Hindi-Urdu wh-movement actually occurs in the narrow syntax. In nonelliptical contexts the lower copy of the wh-phrase gets pronounced, which obscures the movement. In elliptical environments, however, the higher copy is pronounced, since the lower one gets elided at PF.

The evidence for that comes from two facts. First, in the embedded questions wh-phrase in situ can take only the embedded scope. To take the matrix scope, it must be extracted to the matrix clause (Gribanova and Manetta, 2016:653–654). Second, wh-phrases in Hindi-Urdu are in fact island-sensitive (Gribanova and Manetta, 2016:655–657). This is true both for the overtly extracted wh-phrases and for the wh-phrases in situ.

However, the syntax of Buryat wh-questions differs from that of Hindi-Urdu, which does not allow us to postulate that it actually has wh-movement.

The scope of the question is defined by the question particle, rather than by the wh-word itself (12). Hence, this test is unavailing in our case. Moreover, Buryat wh-phrases are island-insensitive. Example (13) demonstrates, that they are not sensitive to the wh-islands. Overall, it seems not possible to posit, that Buryat exhibits genuine wh-movement and genuine sluicing.

- (12) a. xən sajan-i:ɔ xar-a:-b ɡəʒə ɔjuna xəl-ə:.
 who Sajana-ACC see-PST1-Q COMP Ojuna say-PST1
 1. Ojuna said who saw Sajana.
 2. *Who did Ojuna say that saw Sajana?
- b. xən sajan-i:ɔ xar-a:-b ɡəʒə ɔjuna xəl-ə:-b.
 who Sajana-ACC see-PST1-Q COMP Ojuna say-PST1-Q
 Who did Ojuna say that saw Sajana?
- (13) sajana xən xa:na xilə:mə ab-a:-b ɡəʒə hur-a:-b?
 Sajana who where bread.ACC buy-PST1-Q COMP ask-PST1-Q
 a. Who did Sajana asked where bought the bread?
 b. Where did Sajana asked who bought the bread?

2.3 Focus

One more way of dealing with SLCs in wh-in-situ languages is presented in Toosarvandani (2008). Basing on the Farsi data, Toosarvandani proposes, that SLCs may be formed by focus-fronting of an interrogative phrase to Spec,FP, followed by deletion of TP. He also poses an additional

restriction on the movement used to derive SLCs — the F head can only attract wh-phrases to its specifier due to the [uw^h*], an uninterpretable wh feature bearing the EPP feature. This is stipulated so that theory would match the empirical data, according to which non-interrogative sluices (i.e. stripping in embedded clauses) are unavailable in Farsi.

In Buryat, however, focus is licensed pre-verbally. That is why it is implausible that focus movement feeds SLCs in Buryat.

- (14) *maʃʲina aba-mni zaha-na.*
 car.ACC father-1SG repair-PRS
 (Context: – Who is repairing the car?) – My father is repairing a car.

2.4 Scrambling

In the previous sections I have shown that the analyses that have been suggested previously in the literature do not fully capture Buryat data. I am going to propose an alternative to them.

My proposal is based on the similarities between the movement of the wh-phrases and the movement of the non-interrogatives. Buryat wh-phrases can be freely scrambled across the clause:

- (15) *(xən) ʉstər dal də:rə (xən) urainai nom (xən) ol-o:-b (*xən)?*
 who yesterday attic at who old book.ACC who find-PST1-Q who
 Who found an old book at the attic yesterday?

As mentioned in 2.2, wh-elements in Buryat are not sensitive to the island constraint. Notably, wh-phrases are similar in that matter to the scrambled non-interrogative phrases.²

- (16) Availability of extraction in Buryat

Construction	wh-extraction	non-wh-extraction
embedded finite clause with <i>gəʒə</i>	✓	✓
nominalization	✓	✓
conditional clause	✓	✓
causal clause	✓	✓
relative clause	%	%

Based on these facts, I propose that in Buryat the normally optional scrambling movement of the wh-phrase becomes obligatory due to the need to extract the remnant out of the ellipsis site. The rest of the derivation is similar to the derivation of genuine sluicing. After the remnant moves to the Spec,CP, the TP is elided at the PF due to the [E] feature on the head C.

Under this analysis it is expected, that Buryat SLCs exhibit some signature properties of sluicing, like case connectivity and postposition pied-piping. The optional co-occurrence of the complementizer and the question particle is actually expected. In Buryat the complementizer is almost always present in the embedded questions. Apparently, the Doubly-filled COMP Filter is not active; therefore the co-occurrence of the wh-phrase in Spec,CP and the complementizer *gəʒə* is expected. Regarding the question particle, it has been shown that the Q-particle in Buryat is likely to be an adjunct to the CP, like the question particle *ka* in Japanese (Voznesenskaya, 2018). If this

²In all structure extraction of both the wh-adjuncts and the non-wh-adjuncts is not allowed.

is true, that we can assume that in SLCs *-b(ə)* can attach to the *wh*-word, that appears much higher in the clause than it usually does. The question, however, is why the complementizer and the question particle, that are otherwise obligatory in the embedded question, may be not pronounced in SLC. I suppose that this might be due to the unusually high position of the *wh*-word. I leave the formal implementation of that idea for future study.

If this analysis is on the right track, one expects to find non-interrogative sluices as well. Indeed, one can find examples with non-interrogative sluices in Buryat (17).³ One can also find examples where there are two remnants, one being an interrogative one and the other being a non-interrogative one (18).

- (17) a. badma dugar-i:jə sajana-da dura-tai gəʒə xəl-ə:
Badma Dugar-ACC Sajana-DAT love-COM COMP say-PST1
xarʃin bʃi ʉnəxʉ:rʉ: mədə-xə bai-ga:-b darʃima-da (gəʒə).
but I actually know-POT be-PST1-1 Darima-DAT COMP
Badma said, that Dugar loves Sajana, but I knew that he actually liked Darima.
- b. xəm=da: lotəʒj ab-a: bʃi sajana *(gəʒə) ʃəbʃə-nə-m.
who=PTCL lottery take-PST1 I Sajana COMP think-PRS-1
Somebody won a lottery and I think it was Sajana.
- (18) xən dugar-i:ə zur-a:-b gəʒə darʃima nam-da xəl-ə:
who Dugar-ACC draw-PST1-Q COMP Darima we-DAT say-PST1
ti:ɡə:d xən bair-i:ə (gəʒə) xələ:‑ɡʉj.
but who Bair-ACC COMP say-NEG
Darima told us, who drew Dugar, but she didn't tell us, who drew Bair.

3 Conclusion

In this paper I explored sluicing in Buryat and suggested that SLCs are derived via scrambling. Overall, Buryat data reinforces the assumption that at least in some *wh*-in-situ languages SLCs may involve some kind of movement (see also Toosarvandani 2008, Gribanova and Manetta 2016 a.o.). Buryat also provides some novel data on COMP-generalization and non-interrogative sluices.

In the end I should note, that recently a number of alternative theories of ellipsis has been suggested in the literature. Some authors claim that ellipsis is fed by PF-movement (Weir, 2014), or that there is no movement involved in ellipsis at all (Ott and Struckmeier, 2018). I leave the discussion of these approaches to ellipsis with regard to the Buryat and Altaic data for further studies.

Notation conventions

1, 3 1, 3 person; **ACC** accusative; **COMP** complementizer; **CONV** converb; **DAT** dative; **FC** focus particle; **GEN** genitive; **HAB** habitual participle; **NEG** negation; **PASS** passive; **PFCT** perfect;

³Note, that (17a) differs from (17b); while the verb *ʃəbʃəxə* ‘think’ requires that the complementizer *gəʒə* remains not elided along with the non-interrogative sluice, it is not the case with the verb *mədəxə* ‘know’. The same verbs do not impose this requirement in case of regular interrogative sluices. For now I do not have a full explanation to this.

PL plural; **PRS** present tense; **PST1** past tense 1; **PST2** past tense 2; **PTCL** particle; **Q** question particle; **REFL** reflexive; **SG** singular.

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