

“Sloppy” Identity Reading and Sluicing-like Constructions in Mandarin, Uyghur and Mongolian

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Abstract

This paper investigates sluicing-like constructions (SCs) in Mandarin, Mongolian, and Uyghur, contributing to ongoing debates concerning the nature of anaphoric elements in SCs. Through a comparative analysis, we challenge existing diagnostics for distinguishing between surface and deep anaphora, which draws on the availability of “sloppy” identity readings (*contra* Wang & Wu 2006) or on the c-command condition on such readings (*contra* Wei 2009). We expand the current discussion by considering the availability mix “sloppy” readings as a diagnostic test and its correlation with (anti-)case-matching effects and facts about extraction from SCs. Our findings suggest that SCs in Mandarin and Uyghur involve deep anaphora, while SCs in Mongolian exhibit characteristics of surface anaphora. This research offers new insights into the typology of anaphora in SCs.

Keywords

sluicing-like constructions, “sloppy” identity reading, Mandarin, Uyghur, Mongolian

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1. Introduction

In this paper, we examine an interpretive phenomenon observed in ellipsis contexts. Sentences with ellipsis can exhibit ambiguity between two readings if their antecedents contain an anaphoric expression, namely, the “*sloppy*” *identity reading* and the *strict identity reading* (Ross 1969a; Williams 1977; Takahashi 1994; Kim 1999; Merchant 2001; Saito 2007, i.a.). For instance, VP-ellipsis in English allows for both readings (Ross 1967; Otani & Whitman 1991), as illustrated in (1).

- (1) John scratched his arm and Mary did so, too.
 a. “Sloppy” identity reading: Mary scratched her arms.
 b. Strict identity reading: Mary scratched John’s arms.
 (Ross 1967: 348)

Rather than discussing how the “sloppy” identity reading is derived, we examine its distribution in sluicing-like constructions (SCs). SCs involve radically reduced embedded clausal structures, whose interpretations depend on materials in the antecedent clauses (Ross 1969b; Merchant 2001). A typical example of SCs in English is given in (2).

- (2) Ralph is going to invite somebody to the party, but they don’t know [who].
 (Ross 1969b: 252)

In the second clause, the embedded clause of *know* is reduced to a *wh*-expression, but it clearly conveys a clausal interpretation (i.e., *who Ralph is going to invite to the party*).

SCs are pervasive across languages. Mandarin, Mongolian, and Uyghur are no exceptions (Wei 2004; Sakamoto 2012; Bai 2023, i.a.). A Mandarin example is given below.

- (3) Zhangsan kandao mouren, danshi wo bu zhidao [shi shei].
 Zhangsan saw someone but I not know be who
 ‘Zhangsan saw somebody, but I don’t know who.’

An on-going debate surrounding Mandarin SCs concerns what types of silent elements are responsible for the clausal interpretation. Existing proposals differ primarily in the debate over *surface anaphor* (with elided structures) and *deep anaphora* (without elided structures). The main difference concerns whether SCs involve syntactically accessible internal structures (Hankamer & Sag 1976). (4) and (5) illustrate these two prominent families of proposals.

- (4) Proponents of a surface anaphora approach (Wang & Wu 2006; Wei 2009; Song & Yoshida 2017)
 - a. SCs involve **an elided structure**, and [shei] is fronted before ellipsis.
 - b. Step 1: ... shi shei [ta kandao shei] (movement)
Step 2: ... shi shei [ta kandao shei] (clausal ellipsis)
- (5) Proponents of a deep anaphora approach (Wei 2004; Adams & Tomioka 2012; Li 2014; Li & Wei 2017, 2023)
 - a. SCs involve **a non-elided structure**, whose subject is a null pronoun.
 - b. ... *pro* shi shei Cf. *ta/na* shi shei

This paper contributes to the debate by examining the “sloppy” identity reading in Mandarin, Mongolian, and Uyghur. Through a comparative perspective, we provide new evidence for a deep anaphora account of Mandarin SCs. We also uncover that Uyghur SCs pattern with Mandarin, in contrast with Mongolian.

The rest of this paper is organized as follows. Section 2 presents that “sloppy” reading is attested in SCs in Mandarin, Mongolian, and Uyghur. Nevertheless, the availability of “sloppy” reading does not resolve the issue between surface and deep anaphora. Sections 3 and 4 focus on two aspects relating to the distribution of “sloppy” reading that is informative. We argue that the c-command conditions, previously taken to be evidence for a surface anaphora account, are inconclusive (*contra* Wei 2009). We expand the discussions to include the mix “sloppy” identity reading, and present an argument for a deep anaphora approach to Mandarin and Uyghur SCs, in contrast with Mongolian SCs. In Section 5, we draw a correlation between the (un)availability of mix “sloppy” identity reading, the (anti-)case-matching effects and extraction (im)possibility from SCs, offering further support to our proposal. We conclude with remarks in Section 6.

2. The “sloppy” identity reading

2.1. The “sloppy” identity reading in SCs

The “sloppy” reading is typically made available when the antecedent contains a pronoun. In the Mandarin example in (6), the pronoun *ta* is part of the antecedent, and is coindexed with *Zhangsan*. In the subsequent SC, the clausal interpretation need not be *Zhangsan* but refer to *Lisi*, as shown in the translation, resulting in a “sloppy” identity reading.

- (6) Zhangsan_i zhidao [shei zai piping ta_i], dan Lisi_j bu zhidao
Zhangsan know who PROG criticize him but Lisi not know

[shi shei].¹

be who

“Sloppy” reading: ‘Zhangsan knows who is criticizing him, but Lisi doesn’t know who (is criticizing Lisi).’

(Wei 2009: 273)

Under the same configuration, the “sloppy” reading is also attested in SCs in Mongolian (Bai 2023), as shown in (7). The SC in (7b) is anteceded by (7a). It allows the “sloppy” reading, conveying *Tana knows why Tana herself was fired*.

(7) Mongolian

a. Batu-Ø [öber-tegen yaɣun-du oɣčura-ɣda-ɣsan]-iyan
 Batu-NOM self-DAT.REF.POSS what-DAT fire-PASS-PERF-REF.POSS
 mede-xü ügei,
 know-INF not

Lit.: ‘Batu doesn’t know why self was fired,’

b. getele Tana-Ø [yaɣun-du bol-χu]-yi ni mede-ne.
 but Tana-NOM what-DAT COP-INF-ACC PPC know-NPST
 ‘but Tana knows why.’

“Sloppy” reading: ‘but Tana knows why Tana herself was fired.’

(Bai 2023: 146)

Likewise, the “sloppy” reading is observed in SCs in Uyghur (Bai 2023). Again, the sentence in (8a) serves as an antecedent for the SC in (8b), and the “sloppy” reading can be obtained.

(8) Uyghur

a. Tursun-Ø [öz-i-niŋ nemišqa iŝ-tin boŝat-il-
 Tursun-NOM self-3SG.POSS-GEN why thing-ABL fire-PASS-

¹ The following abbreviations are used in this paper: ABL for ablative; ACC for accusative; ADN for adnominal; ADVL for adverbializer; AUX for auxiliary; CAUS for causative; COMP for complementizer; COP for copula; DAT for dative; DES for desiderative; GEN for genitive; HAB for habitual; HON for honorific; IMP for imperative; INF for infinitive; LOC for locative; NEG for negation; NOM for nominative; NOML for nominalizer; NPST for non-past tense; PASS for passive; PERF for perfective; PL for plural; POSS for possessive; POSTP for postposition; PPC for personal possessive clitic; PRT for particle; PROG for progressive; PST for past tense; REF for reflexive; 1PL for first-person plural; 1SG for first-person singular; 2SG for second-person singular; 2PL for second-person plural; and 3SG for third-person singular.

(Bai 2023: 298)

This is also true in Mongolian and Uyghur, as shown in (11) and (12), respectively. Only the strict reading is allowed in (11b) and (12b). It is argued that the presence of the demonstratives suggests the absence of an elided structure. The “sloppy” reading cannot be derived in a way like (9a).

(11) Mongolian

- a. Batu-Ø [öber-tegen yayun-du oyčura-γda-γsan]-iyan
 Batu-NOM self-DAT.REF.POSS what-DAT fire-PASS-PERF-REF.POSS
 mede-xü ügei,
 know-INF not
 Lit.: ‘Batu doesn’t know why self was fired,’
- b. getele Tana-Ø [tere yayun-du bol-χu]-yi ni mede-ne.
 but Tana-NOM that what-DAT COP-INF-ACC PPC know-NPST
 Strict reading only: ‘but Tana knows why that is.’

(12) Uyghur

- a. Tursun-Ø [öz-i-niñ nemišqa iš-tin bošat-il-
 Tursun-NOM self-3SG.POSS-GEN why thing-ABL fire-PASS-
 ğan-liq]-i-ni bil-mä-ydu-Ø,
 PERF.ADN-NOML-3SG.POSS-ACC know-NEG-NPST-3SG
 Lit.: ‘Tursun doesn’t know why self was fired,’
- b. lekin Aygül-Ø [u-niñ nemišqa (ikän) lik]-i-ni
 but Aygül-NOM that-GEN why COP NOML-3SG.POSS-ACC
 bil-idu-Ø.
 know-NPST-3SG
 Strict reading only: ‘but Aygül knows why that is.’

2.2. The “sloppy” identity reading in non-elliptical contexts

The above discussions, however, do not necessitate a surface anaphora analysis of SCs. If we go beyond demonstratives in elliptical contexts, it is well known that deep anaphora may also allow “sloppy” reading, despite the absence of elided structures (Fiengo & May 1994; Hoji 1998, 2003; Culicover & Jackendoff 2005; Merchant 2013), exemplified in (13).

(13) Deep anaphora in English, with “sloppy” reading

- a. John touches his finger to his nose. [To Bill:] Now you **do it**.
 b. John washed his car on that rainy day. Bill **did the same thing**.
 c. Ralph ate his ice-cream with a spoon, and Seymour **did the same thing**.

In Mandarin, “sloppy” reading is retained with the deep anaphora *zheme zuo* ‘do so’ (Wei & Li 2016), as in (14). The same is observed in Mongolian and Uyghur, as illustrated in (15) and (16), respectively.

- (14) Zhangsan dailai-le ta-de pengyou; Lisi ye **zheme zuo-le**.
Zhangsan bring-ASP he-DE friend Lisi also so do-ASP
“Sloppy” reading: ‘Zhangsan brought his friend; Lisi did so (brought Lisi’s friend) as well.’

- (15) Mongolian
Mergen-Ø öber-ün joxiyal-ıyan üje-be, bi-Ø basa **tege-jei**.
Mergen-NOM self-GEN article-RELF.POSS read-PST I-NOM also do.that-PST
“Sloppy” reading: ‘Mergen read his article, I also did so (=read my article).’

- (16) Uyghur
Murat-Ø öz-i-niñ maqalä-si-ni kör-di-Ø,
Murat-NOM self-3SG.POSS-GEN article-3SG.POSS-ACC see-PST-3SG
män-mu şundaq qil-di-m.
I-also so do-PST-1SG
“Sloppy” reading: ‘Murat read his article. I also did so (=read my article).’

The observation that deep anaphora also permits “sloppy” reading in these languages indicates that the mere availability of “sloppy” reading is indecisive for determining the nature of anaphoric elements in these languages. The availability of “sloppy” reading may not be correlated with the presence of elided structures, and the blocking effects induced by demonstratives may be due to independent constraints rooted in demonstratives.

3. The c-command conditions: An argument against surface anaphora in SCs

3.1. The c-command conditions in Mandarin

Ross (1967) observes a condition on the availability of “sloppy” reading. Precisely, for an elliptic expression to have a “sloppy” reading, a pronoun relevant for the reading must be c-commanded by its antecedent. Consider (17):

- (17) English VP-ellipsis
a. ^{Sloppy} **John** scratched **his** arm, and Mary did too.
b. ^{*Sloppy} **John’s** mother scratched **his** arm, and Mary’s mother did too.

In (17a), the “sloppy” reading is permitted with *John* c-commanding the pronoun *his*. In (17b), on the other hand, the “sloppy” reading is not obtained with the pronoun *his* not being c-commanded by *John*. The same can be observed in English sluicing, as in (18).

(18) English sluicing

- a. ^{Sloppy} **John** knows why **he** was scolded, and Mary knows why, too.
 b. ^{*Sloppy} **John's** mother knows why **he** was scolded, and Mary's mother knows why, too.

The “sloppy” reading can be obtained in (18a) with the pronoun *he* being c-commanded by *John*. In contrast, when the pronoun *he* is not c-commanded by *John* in (18b), the “sloppy” reading is not available.

In this regard, Wei (2009) makes a critical observation that a similar condition is in effect in Mandarin SCs, as illustrated in (19).

- (19) a. **Zhangsan_i** bu zhidao [**ta_i** weishenme bei ma], dan
 Zhangsan not know he why PASS scold but
 Lisi_j zhidao (shi) weishenme.
 Lisi know be why
 ‘Zhangsan_i didn’t know why he_i was scolded, but Lisi_j knows why he_{i/j} was scolded.’ (strict/sloppy)
 b. [**Zhangsan_i-de** muqin] zhidao [**ta_i** weishenme bei ma],
 Zhangsan-DE mother know he why PASS scold
 dan [Lisi_j-de muqin] bu zhidao (shi) weishenme.
 but Lisi-DE mother not know be why
 ‘Zhangsan_i’s mother knows why he_i was scolded, but Lisi_j’s mother does not know why he_{i/*j} was scolded.’ (strict/*sloppy)
 (Wei 2009: 272)

The observation that “sloppy” reading is sensitive to structural relations is argued to support a surface anaphora account, and thus an ellipsis analysis, since such a condition cannot be easily formulated in an analysis that posits no structure (but see also Li & Wei (2023) for a defense).

3.2. The c-command conditions in Mongolian and Uyghur

If we extend the c-command test to Mongolian and Uyghur, we find that the “sloppy” reading in the same configuration is not strictly ruled out. Consider first the Mongolian example in (20). In (20), the pronoun *tere* is not c-commanded by the subject *Mergen*. However, this does not exclude the “sloppy” reading in (20b).

(20) Mongolian

- a. [**Mergen-ü** eji ni] [**tere** yayun-du]
 Mergen-GEN mother 3SG.POSS 3SG what-DAT

χariya-γda-γsan]-i (ni) mede-xū ügei,
scold-PASS-PERF-ACC 3SG.POSS know-INF not

‘Mergen’s mother doesn’t know why he was scolded,’

- b. getele Bayatur-un eji ni [yayun-du bol-χu]-yi
but Bayatur-GEN mother 3SG.POSS what-DAT COP-INF-ACC
ni mede-ne.
3SG.POSS know-NPST

‘but Bayatur’s mother knows why.’

“Sloppy” reading: ‘but Bayatur’s mother knows why Bayatur was scolded.’

Similarly, in Uyghur, in the absence of the c-commanding condition between *Murat* and the pronoun, the “sloppy” reading is still allowed in SCs, as in (21).

(21) Uyghur

- a. [Murat-nin ana-si] [u-nin nemişqa til
Murat-GEN mother-3SG.POSS 3SG-GEN why language
işit-qan-liq]-i-ni bil-mä-ydu-Ø,
hear-PERF.ADN-NOML-3SG.POSS-ACC know-NEG-NPST-3SG
‘Murat’s mother doesn’t know why he got scolded,’

- b. lekin Adil-nin ana-si [nemişqa (ikän)
but Adil-GEN mother-3SG.POSS why COP
lik]-i-ni bil-idu-Ø.
NOML-3SG.POSS-ACC know-NPST-3SG

‘but Adil’s mother knows why.’

“Sloppy” reading: ‘but Adil’s mother knows why Adil got scolded.’

More importantly, we observe that the structural condition does not hold in non-genitive embedded contexts, such as relative clauses. The Mandarin example in (22) embeds *Zhangsan* in a relative clause, disrupting the c-command relation with the pronoun *ta*. However, the “sloppy” reading can be obtained in (22b).

- (22) a. [Renshi **Zhangsan** de ren] dou bu zhidao [ta weishenme cizhi],
know Zhangsan DE person all not know he why resign
‘Those who know Zhangsan didn’t know why he resigned,’

- b. dan [renshi Lisi de ren] dou zhidao [shi weishenme].
but know Lisi DE person all know be why

“Sloppy” reading: ‘but those who know Lisi know why (Lisi resigned).’

This indeed holds true for all three languages. Parallel examples can be given in Mongolian and Uyghur, respectively in (23) and (24).

(23) Mongolian

- a. [**Mergen**-i tani-day xümün] бүр [**tere** yayun-du
 Mergen-ACC know-HAB.ADN person all 3SG what-DAT
 ajil-ıyan ɣaya-ısan]-i (ni) mede-xü ügei,
 job-REF.POSS throw.away-PERF-ACC 3SG.POSS know-INF not
 ‘People who know Mergen do not know why he quitted his job,’
- b. getele [Bayatur-i tani-day xümün(-üd)] ni
 but Bayatur-ACC know-HAB.ADN person-PL 3SG.POSS
 бүр [yayun-du bol-ɣu]-yi ni mede-ne.
 all what-DAT COP-INF-ACC 3SG.POSS know-NPST
 ‘but people who know Bayatur know why.’
 “Sloppy” reading: ‘but people who know Bayatur know why Bayatur quitted his job.’

(24) Uyghur

- a. [**Murat**-ni tonu-ydiğan kişi-lär-ni] hämmä-si
 Murat-ACC know-NPST.ADN person-PL-GEN all-3SG.POSS
 [u-ni nemişqa istepa bär-idiğan-liq]-
 3SG-GEN why resign AUX-NPST.ADN-NOML-
 i-ni bil-mä-ydu-Ø,
 3SG.POSS-ACC know-NEG-NPST-3SG
 ‘People who know Murat do not know why he resigned,’
- b. lekin [Adil-ni tonu-ydiğan kişi-lär-ni]
 but Adil-ACC know-NPST.ADN person-PL-GEN
 hämmä-si [nemişqa (ikän) lik]-i-ni bil-idu-Ø.
 all-3SG.POSS why COP NOML-3SG.POSS-ACC know-NPST-3SG
 ‘but people who know Adil know why.’
 “Sloppy” reading: ‘but people who know Adil know why Adil resigned.’

Taking stock, we have seen in this section that, in certain languages, the “sloppy” reading in SCs is sensitive to a c-command condition (e.g., English, and Japanese; see also Takahashi (1994)). However, the condition does not hold consistently across languages and across embedded contexts. This weakens the strength of the argument for a surface anaphora account. In contrast, the variations of the availability of the “sloppy” reading seem to suggest that the reading is pragmatically controlled, rather than syntactically controlled, and thus may not be a reliable diagnostic test for surface and deep anaphora.

4. The mix “sloppy” identity reading: An argument for deep anaphora in SCs

4.1. The mix “sloppy” identity reading in English

Another distinction between surface and deep anaphora concerns a more specific type of “sloppy” reading. This reading arises in elliptical contexts when there are more than one pronoun in the antecedent clause (Fiengo & May 1994). Consider (25):

- (25) Max_i said **his_i** mother saw **him_i**; Oscar_j did too.
 a. Strict reading: Oscar_j said **his_i** mother saw **him_i**.
 b. “Sloppy” reading: Oscar_j said **his_j** mother saw **him_j**.
 c. Mix “sloppy” reading: Oscar_j said **his_j** mother saw **him_i**.

In (25), in addition to the strict reading and the “sloppy” reading, there is a mix identity reading, as in (25c), where the two pronouns do not have the same antecedent (hence “mix”). The availability of the mix reading is argued to be derivable from an elided structure that contains all the relevant variables. Importantly, such a reading does not appear in cases with deep anaphora (Hoji 1998, 2003), as shown in (26).

- (26) John_i said that **his_i** roommate had hit **him_i**, and Bill_j *did the same thing*.
 a. Strict reading: Bill_j said that **his_i** roommate had hit **him_i**.
 b. “Sloppy” reading: Bill_j said that **his_j** roommate had hit **him_j**.
 c. *Mix “sloppy” reading: Bill_j said that **his_j** roommate had hit **him_i**.

In the next sections, we apply this test to Mandarin, Uyghur, and Mongolian.

4.2. The mix “sloppy” identity reading in Mandarin and Uyghur

We find that mix reading is not possible in Mandarin SCs in (27). Note that the interpretation of the SC in (27b) can be a strict reading or a “sloppy” reading.

- (27) a. Zhangsan zhidao [ta-de muqin weishenme ma ta],
 Zhangsan know ta-DE mother why scold him
 ‘Zhangsan knows why his mother scolded him,’
 b. dan Lisi bu zhidao [shi weishenme].
 but Lisi not know be why
 *Mix “sloppy” reading: ‘Lisi doesn’t know why Lisi’s mother scolded Zhangsan.’

Furthermore, according to our nine Uyghur informants, seven of them report that there is no mix “sloppy” reading in the SC in (28b).

(28) Uyghur

- a. Murat-Ø [ana-**si-niŋ** u-ni nemišqa tilla-
 Murat-NOM mother-3SG.POSS-GEN 3SG-ACC why scold-
 ğan-liq]-i-ni bil-idu-Ø,
 PERF.ADN-NOML-3SG.POSS-ACC know-NPST-3SG
 ‘Murat knows why his mother scolded him,’
- b. lekin Adil-Ø [nemišqa (ikän) lik]-i-ni bil-mä-ydu-Ø.
 but Adil-NOM why COP NOML-3SG.POSS-ACC know-NEG-NPST-3SG
 Strict reading: ‘but Adil doesn’t know why Murat’s mother scolded Murat.’
 “Sloppy” reading: ‘but Adil doesn’t know why Adil’s mother scolded Adil.’
 Mix “sloppy” reading: ‘but Adil doesn’t know why Adil’s mother scolded Murat.’ (2 out of 9 accept this reading)

As such, Mandarin and Uyghur pattern in this regard: the mix reading in SCs is unavailable, or at least very difficult to get. This would be a surprise for a surface anaphora analysis, especially that the mix reading is reported to be possible in Mandarin VP ellipsis/*shi*-ellipsis (Li 2002; Li & Wei 2014). These observations thus point at a deep anaphora analysis in Mandarin and Uyghur.

4.3. The mix “sloppy” identity reading in Mongolian

Interestingly, Mongolian SCs display a different pattern from that in Mandarin and Uyghur. In (29), the Mongolian counterpart of the configuration under discussion is reported to have the mix “sloppy” reading in (29b) – seven of our nine informants accept such a reading.

(29) Mongolian

- a. Mergen-Ø [tegün-ü eji ni yayun-du **tegün-i**
 Mergen-NOM 3SG-GEN mother 3SG.POSS what-DAT 3SG-ACC
 xariya-ju bai-xu]-yi (ni) mede-ne,
 scold-ADVL AUX-INF-ACC 3SG.POSS know-NPST
 ‘Mergen knows why his mother scolded him,’
- b. getele Bayatur-Ø [yayun-du bol-xu]-yi ni
 but Bayatur-NOM what-DAT COP-INF-ACC 3SG.POSS
 mede-xü ügei.
 know-INF not

Strict reading: ‘but Bayatur doesn’t know why Mergen’s mother scolded Mergen.’
 “Sloppy” reading: ‘but Bayatur doesn’t know why Bayatur’s mother scolded Bayatur.’
 Mix “sloppy” reading: ‘but Bayatur doesn’t know why Bayatur’s mother scolded Mergen.’ (7 out of 9 accept this reading)

If the above discussion is on the right track, then the availability of the mix “sloppy” reading divides the SCs in the three languages into two groups. To the extent that the availability of the mix reading is a reliable diagnostic test of deep and surface anaphora, we can conclude that SCs in Mandarin and Uyghur involve deep anaphora, whereas SCs in Mongolian involve surface anaphora.

- (30) a. ^{*/?}Mix reading: Mandarin and Uyghur → Deep anaphora
 b. ^{OK}Mix reading: Mongolian → Surface anaphora

5. Correlating “sloppy” identity reading with two other observations

The validity of the mix “sloppy” reading test can be strengthened by a correlation with the (anti-) case-matching effects in Uyghur and Mongolian, which we discuss in some details below.

5.1. The (anti-)case-matching effects in Uyghur and Mongolian

Bai (2023) reports that Uyghur SCs consistently resist case-marking on *wh*-expressions in SCs, as shown in (31).

- (31) Uyghur
 a. Ayxan-Ø bir-xil mewä-gä amraq,
 Ayxan-NOM one-CL fruit-DAT fond
 ‘Ayxan is fond of a kind of fruit,’
 b. lekin män-Ø [Ayxan-niṅ qaysi-xil mewä-gä
 but 1SG-NOM Ayxan-GEN which-CL fruit-DAT
 amraq-liq]-i-ni bil-mä-y-män.
 fond-NOML-3SG.POSS-ACC know-NEG-NPST-1SG
 ‘but I don’t know which kind of fruit Ayxan is fond of.’
 c. lekin män-Ø [qaysi-xil mewä(-*gä) (ikän) lik]-
 but 1SG-NOM which-CL fruit-DAT COP NOML-
 i-ni bil-mä-y-män.
 3SG.POSS-ACC know-NEG-NPST-1SG
 ‘but I don’t know which kind of fruit.’

(Bai 2023: 274)

(31a) is intended to antecede (31b–c), and the object *bir-xil mewä* ‘one-CL fruit’ is marked with dative case. (31b) contains a full-fledged embedded question, where the *wh*-phrase, *qaysi-xil mewä* ‘which-CL fruit,’ which corresponds to the object in (31a), is also marked with dative case. However, in the SC in (31c), the same dative marking cannot appear on the *wh*-phrase.

Note that this anti-case marking effect is not specific to dative case. Let us consider an example with an ablative-marked correlate. The correlate in the antecedent sentence in (32a) is marked ablative. However, the *wh*-phrase in (32b) cannot be marked ablative.

(32) Uyghur

- a. Ayxan-Ø bir-xil haywan-**din** qorq-idu-Ø,
 Ayxan-NOM one-CL animal-ABL fear-NPST-3SG
 ‘Ayxan fears one kind of animal,’
- b. lekin män-Ø [qaysi-xil haywan(-***din**) (ikän) lik]-
 but 1SG-NOM which-CL animal-ABL COP NOML-
 i-ni bil-mä-y-män.
 3SG.POSS-ACC know-NEG-NPST-1SG
 ‘but I don’t know which kind of animal.’

(Bai 2023: 275)

The anti-case marking effect in Uyghur SCs indicates that the *wh*-expression is base-generated in SCs, following a derivation depicted in (5).

In contrast to Uyghur, as reported in Bai (2023), Mongolian SCs allow case-marking on the *wh*-expressions in SCs. The *wh*-phrase *xen* ‘who’ in (33b) corresponds to the indirect object in (33a) and is marked with dative case. In the SC in (33c), the *wh*-expression can be accompanied by the dative case marker.

(33) Mongolian

- a. Batu-Ø nige xümün-**dü** ene nom-i ög-be,
 Batu-NOM one person-DAT this book-ACC give-PST
 ‘Batu gave this book to a person,’
- b. gebečü bi-Ø [tegün-ü xen-**dü** ene nom-i öggü-gsen]-
 but I-NOM he-GEN who-DAT this book-ACC give-PERF-
 i (ni) mede-xü ügei.
 ACC PPC know-INF not
 ‘but I don’t know to whom he gave this book.’

- c. gebečü bi-Ø [xen-dü bol-χu]-yi ni mede-xü ügei.
but I-NOM who-DAT COP-INF-ACC PPC know-INF not
'but I don't know to whom.'
(Bai 2023: 142)

Consider also the ablative-case-marked SC in (34). The SC in (34b) consists of an ablative-marked *wh*-phrase, matching the case in the antecedent clause.

(34) Mongolian

- a. Batu-Ø öčügedür nige baysi-ača asayulta-Ø asayü-ba.
Batu-NOM yesterday one teacher-ABL question-ACC ask-PST
'Batu asked a teacher a question yesterday.'
b. Bi-Ø [ali baysi-ača bol-χu]-yi ni mede-xü ügei.
I-NOM which teacher-ABL COP-INF-ACC PPC know-INF not
'I don't know which teacher.'
(Bai 2023: 143)

The case-matching effect in SCs, as opposed to the anti-case-matching effect, indicates that movement might have occurred in the SCs, where the *wh*-expression gets its case from an elided predicate, following the derivation in (4).

As such, at least in Uyghur and Mongolian, we have established a correlation between the (un)availability of the mix reading and the (anti-)case-matching effect, summarized in (35) below. It in turn provides a diagnostic for a deep or surface analysis of SCs in languages.

- (35) a. SCs in Uyghur involve deep anaphora, supported by the correlation between
*Mix reading ↔ anti-case-matching effects
b. SCs in Mongolian involve surface anaphora, supported by the correlation
between Mix reading ↔ case-matching effects

Since Mandarin lacks overt morphological case, its SCs provide no independent evidence for or against surface or deep anaphora from case-marking. But we argue that the correlations observed in (35) substantially strengthen the validity of the mix reading diagnostic.

5.2. Extraction (im)possibility from SCs

As pointed out by an anonymous reviewer, extraction from SCs is predicted to be unavailable in Mandarin and Uyghur, if there is no elided structure at all. On the other

hand, Mongolian would allow extraction from SCs, if they involve surface anaphora, and thus come with an elided structure. We show that this prediction is borne out in the three languages.

Let us start with a minimal pair in Uyghur and Mongolian in (36) and (37). When attempting to extract the object from a SC construction, the two languages diverge. (36a) shows that long distance extraction of the object is allowed from a complement clause, but it is disallowed when the complement clause is a SC, as in (36b). In contrast, the Mongolian counterpart in (37b) indicates that such an extraction is unproblematic.

(36) Uyghur

Context: He borrowed Uyghur-Chinese and Chinese-Uyghur dictionaries.

- a. [Uyğurčä-xänzučä luğät-ni]_i män-Ø [qäyär-din t_i
 Uyghur-Chinese dictionary-ACC 1SG-NOM where-ABL
 ariyät al-ğan-liq]-i-ni bil-mä-y-män,
 loan AUX-PERF.ADN-NOML-3SG.POSS-ACC know-NEG-NPST-1SG
 ‘Uyghur-Chinese dictionary, I don’t know where he borrowed,’
- b. *lekin, [xänzučä-uyğurčä luğät-ni] män-Ø [qaysi
 but Chinese-Uyghur dictionary-ACC 1SG-NOM which
 kütupxana (ikän) lik]-i-ni bil-i-män.
 library COP NOML-3SG.POSS-ACC know-NPST-1SG
 Int.: ‘but Chinese-Uyghur dictionary, I know which library.’

(37) Mongolian

Context: He borrowed Mongolian-Chinese and Chinese-Mongolian dictionaries.

- a. [Xitad Mongyol toli-yi]_i bi-Ø [ali nom-un
 Chinese Mongolian dictionary-ACC I-NOM which book-GEN
 sang-ača t_i jigele-gsen]-i ni mede-xü ügei,
 storeroom-ABL borrow-PERF-ACC PPC know-INF NEG
 ‘Chinese-Mongolian dictionary, I don’t know from which library he borrowed,’
- b. getele [Mongyol Xitad toli-yi] bi- [ali
 but Mongolian Chinese dictionary-ACC I-NOM which
 nom-un sang-ača (bol-xu)]-yi ni mede-ne.
 book-GEN storeroom-ABL COP-INF-ACC PPC know-NPST
 ‘but Mongolian-Chinese dictionary, I know from which library.’

These observations add a further correlation with mix reading and case-matching. (35) can be updated as (38):

- (38) a. SCs in Uyghur involve deep anaphora, supported by the correlation between
*Mix reading $\leftrightarrow$ anti-case-matching effects
 $\leftrightarrow$ *extraction from a SC
b. SCs in Mongolian involve surface anaphora, supported by the correlation
between Mix reading $\leftrightarrow$ case-matching effects
 $\leftrightarrow$ extraction from a SC

Turning to Mandarin, a parallel example has been discussed in Wang & Wu (2006), given in (39), and they argue that the second conjunct means “Lisi knows where he saw that book” instead of “Lisi knows where the book was.”

- (39) a. Zhe-ben shu_i Laowu zhidao ta zainali kanguo t_i ,
this-CL book Laowu know he where saw
‘This book, Laowu knows where he saw,’
b. er na-ben shu_i Lisi ye zhidao [**zainali** t_i].
and that-CL book Lisi also know where
‘and that book, Lisi knows where (he saw) too.’
(Wang & Wu 2006: 382)

They take the interpretation of (39b) to be evidence for the presence of an elided structure originated from the SC. However, we have consulted seven native Mandarin speakers and either (39b) is unacceptable, or it is acceptable on the reading of “Lisi knows where the book was,” contrary to Wang & Wu’s judgment. If so, (39b) indeed lends support to a deep anaphora approach to SCs in Mandarin. The unacceptability of (40b) below further confirms that this is the case – while the PP in the first clause can be extracted from the complement clause, the PP in the second clause cannot, suggesting that extraction from SCs in Mandarin is impossible, on a par with Uyghur SCs.

- (40) a. Zai Xianggan_i, wo zhidao Zhangsan t_i xihuan chi shenme.
in Hong Kong, I know Zhangsan like eat what
‘In Hong Kong, I know what Zhangsan likes to eat.’
b. *dan zai Riben, wo que bu zhidao
but in Japan I however not know
[shi shenme].
be what
‘but in Japan, I don’t know what (he likes to eat).’

6. Concluding remarks

Sluicing-like constructions have attracted much attention in the literature. This paper contributes to the debate with regard to the nature of the anaphoric elements in SCs. We examined “sloppy” identity reading in SCs in Mandarin, Mongolian, and Uyghur. From a comparative perspective, we provide arguments against previously discussed diagnostics of surface and deep anaphora: the mere availability of “sloppy” reading (*contra* Wang & Wu (2006)) and the c-command condition on “sloppy” reading (*contra* Wei (2009)). Further, we reveal a promising area pertaining to mix “sloppy” reading as a reliable test, and its correlation with the (anti-)case-matching effects and extraction (im)possibility from SCs. Our study provides support for the proposal that SCs in Mandarin and Uyghur involve deep anaphora, whereas SCs in Mongolian involve surface anaphora.

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漢語、維吾爾語以及蒙古語中“鬆散”解讀與類截省結構研究

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提要

本文考察漢語、蒙古語和維吾爾語中的類截省結構，圍繞該類結構中照應成分的本質問題展開探討。通過對比分析，對區分表層照應與深層照應的現有判定標準進行了重新審視。現有標準依賴於“鬆散”解讀的可能性（有別於 Wang & Wu 2006 的觀點）或此類解讀的 c-支配條件（有別於 Wei 2009 的觀點）。本文引入混合型“鬆散”解讀的可能性作為新判定標準，並將其與（反）格匹配效應、從類截省結構中提取成分等現象進行關聯分析，從而拓展了現有討論。本研究發現，漢語和維吾爾語的類截省結構涉及深層照應，而蒙古語的類截省結構則呈現表層照應的特徵。本研究為類截省結構中照應成分的類型學研究提供了新的見解。

關鍵詞

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