Doctoral Dissertation

An Exploration of Multiple Sluicing from a Cross-linguistic Perspective

(多重疑問節縮約の言語比較研究)

Xue Bai

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An Exploration of Multiple Sluicing from a Cross-linguistic Perspective

by

Xue Bai

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Author.....

Xue Bai

Graduate School of International Cultural Studies

Certified by.....

Daiko Takahashi

Professor, Supervisor

Graduate School of International Cultural Studies

Certified by.....

Takeshi Nakamoto

Associate Professor, Sub-Supervisor

Graduate School of International Cultural Studies

Certified by.....

Hyeonjeong, Jeong

Professor, Committee Member

Graduate School of International Cultural Studies

Accepted by.....

Daiko Takahashi

Professor and Chair

Graduate School of International Cultural Studies

Doctoral Dissertation Abstract

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Tohoku University

Graduate School of International Cultural Studies

(IGPLS)

Xue Bai

Supervisor: Daiko Takahashi

Title: Professor

Sub-supervisor: Takeshi Nakamoto

Title: Associate Professor

This dissertation studies multiple sluicing in three *wh*-in-situ languages: Chakhar Mongolian, which is the standard dialect of modern Mongolian spoken in the Inner Mongolia Autonomous Region of China; Uyghur, which is spoken in the Xinjiang Uyghur Autonomous Region of China; and Mandarin Chinese. The goal is to examine their multiple sluicing constructions and explicate the observed properties within the framework of generative syntax.

Chapter 1 presents the research questions and the organization of the dissertation.

Chapter 2 introduces sluicing constructions and their properties to lay a foundation for the discussion on reduced questions. Further, I present theoretical analyses of sluicing constructions, including a PF deletion approach and an LF copying approach. Moreover, I review three lines of analysis explaining the sluicing-like constructions in some *wh*-in-situ languages: the pseudo-sluicing analysis, the reduced cleft analysis, and the reduced pseudo-cleft analysis.

Chapter 3 studies reduced embedded single *wh*-questions and reduced embedded questions with multiple *wh*-phrases (RQMW) in Chakhar Mongolian (CM). First, the following is a typical case of reduced single *wh*-questions in CM.

(1) a. Batu-Ø nige xümün-dü ene nom-i xürge-be,
Batu-NOM one person-DAT this book-ACC give-PST
'Batu gave this book to a person,'

b. gebečü bi-Ø [xen (bol-χu)]-yi ni mede-xü ügei.
but I-NOM who COP-INF-ACC PPC know-INF not
'but I don't know who.'

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.'

The sentence in (1a) antecedes the reduced questions in (1b-c), indicated with brackets. The

reduced question in (1b) contains the *wh*-remnant, *xen* ‘who,’ which can be optionally followed by the copula *bol*. Moreover, the *wh*-remnant can be accompanied by a case marker, as in (1c). The reduced questions are assigned accusative case by the matrix predicate *mede* ‘know.’

I propose analyzing reduced questions in CM in terms of the pseudo-sluicing analysis, the reduced pseudo-cleft analysis, or the reduced cleft analysis, as shown in (2-4), respectively.

(2) a. gebečü bi-Ø [*pro* xen (bol-χu)]-yi ni mede-xü ügei
but I-NOM he who COP-INF-ACC PPC know-INF not
‘but I don’t know who (he) was’

b. gebečü bi-Ø [tere ni xen (bol-χu)]-yi (ni) mede-xü ügei.
but I-NOM he PPC who COP-INF-ACC PPC know-INF not
‘but I don’t know who he was.’

(3) a. gebečü bi-Ø [[Batu-yin ene nom-i xürge-gsen] ni xen
but I-NOM Batu-GEN this book-ACC give-PERF.ADN PPC who
bol-χu]-yi (ni) mede-xü ügei.
COP-INF-ACC PPC know-INF not
‘but I don’t know who the person Batu gave this book to was.’

b. gebečü bi-Ø [[Batu-yin ene nom-i xürge-gsen] ni xen
but I-NOM Batu-GEN this book-ACC give-PERF.ADN PPC who
bol-χu]-yi (ni) mede-xü ügei
COP-INF-ACC PPC know-INF not

(4) a. gebečü bi-Ø [[Batu-yin ene nom-i xürge-gsen] ni xen-dü
but I-NOM Batu-GEN this book-ACC give-PERF.ADN PPC who-DAT
bol-χu]-yi (ni) mede-xü ügei.
COP-INF-ACC PPC know-INF not

‘but I don’t know to whom it was that Batu gave this book.’

b. gebečü bi-Ø [[Batu-yin ene nom-i xürge-gsen] ni xen-dü
but I-NOM Batu-GEN this book-ACC give-PERF.ADN PPC who-DAT
bol-χu]-yi (ni) mede-xü ügei
COP-INF-ACC PPC know-INF not

The pseudo-sluicing analysis of the reduced question in (1b) is shown in (2a), which includes an empty pronominal subject, a *wh*-phrase, and an optional copula. As predicted by the pseudo-sluicing analysis, the empty pronoun can alternate with an overt pronoun, as in (2b). (2b) is a natural follow-up to the antecedent sentence in (1a). Next, the reduced pseudo-cleft analysis is illustrated in (3). The full-fledged pseudo-cleft counterpart of the reduced question in (1b) is shown in (3a). In the pseudo-cleft sentence, the free relative clause, which expresses the presupposition, is marked by the PPC *ni* and functions as the subject of the embedded clause. When the clausal subject is elided as indicated with grey shading in (3b), the reduced question is derived. Ellipsis of the clausal subject is allowed in CM since the language independently allows subject ellipsis. Now consider the reduced cleft analysis in (4). The full-fledged cleft counterpart of the reduced question in (1c) is shown in (4a). In the cleft sentence, the presuppositional clause marked by the PPC *ni* functions as the subject of the embedded clause. Applying subject ellipsis to (4a), as indicated in (4b), we obtain the reduced question. I show that all three analyses are needed since they have different empirical coverage.

Turning to RQMW in CM, they exhibit the case-matching effect and adhere to the clause-mate condition. I argue that RQWM can be analyzed by the reduced cleft analysis.

(5) a. Batu-Ø nige γaǰar-ača nige xümün-dü beleg-Ø ilege-be,
Batu-NOM one place-ABL one person-DAT present-ACC send-PST
‘Batu sent a present to a person from a place,’

b. gebečü bi-Ø [χamiγa-ača xen-dü bol-χu]-yi ni mede-xü ügei.
but I-NOM where-ABL who-DAT COP-INF-ACC PPC know-INF not
'lit. but I don't know to whom from where.'

c. gebečü bi-Ø [[Batu-yin beleg-Ø ilege-gsen] ni χamiγa-ača
but I-NOM Batu-GEN present-ACC send-PERF.ADN PPC where-ABL
xen-dü bol-χu]-yi (ni) mede-xü ügei.
who-DAT COP-INF-ACC PPC know-INF not
'lit. but I don't know to whom from where it was that Batu sent a present.'

d. gebečü bi-Ø [[Batu-yin beleg-Ø ilege-gsen] ni χamiγa-ača
but I-NOM Batu-GEN present-ACC send-PERF.ADN PPC where-ABL
xen-dü bol-χu]-yi (ni) mede-xü ügei
who-DAT COP-INF-ACC PPC know-INF not

The sentence in (5a) antecedes the reduced question in (5b) and the embedded multiple cleft sentence in (5c) with two case-marked pivots. Applying subject ellipsis to (5c), as shown in (5d), we obtain the reduced question in (5b). RQMW can be derived from the multiple cleft sentences because they exhibit parallel properties. Additionally, I argue that RQMW cannot be analyzed in terms of the pseudo-sluicing analysis or the reduced pseudo-cleft analysis.

Chapter 4 investigates reduced embedded single *wh*-questions and reduced questions with multiple *wh*-phrases in Uyghur. The following is a typical case of reduced single questions.

(6) a. Murat-Ø biraw-ğa nurğun pul bär-di-Ø,
Murat-NOM someone-DAT a.lot money give-PST-3SG
'Murat gave someone a lot of money,'

b. meniŋ [kim(-*gä) (ikän) lik]-i-ni bil-gü-m bar.
1SG.GEN who-DAT COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have

‘I want to know who.’

The sentence in (6a) is the antecedent of the reduced question in (6b). The reduced question contains the *wh*-remnant, the optional copula *ikän*, and the complementizer *lik*. Crucially, the remnant *wh*-phrases in truncated single questions in Uyghur cannot be case-marked.

I argue that reduced single questions in Uyghur can be analyzed in terms of the pseudo-sluicing analysis or the reduced cleft analysis, as illustrated in (7) and (8), respectively.

(7) a. meniŋ [*pro* kim (ikän) lik]-i-ni bil-gü-m bar
1SG.GEN 3SG who COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
‘I want to know who (he) was’

b. meniŋ [u-niŋ kim (ikän) lik]-i-ni bil-gü-m bar.
1SG.GEN 3SG-GEN who COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
‘I want to know who he was.’

(8) a. meniŋ [[u-niŋ nurğun pul bär-gän-i]-niŋ kim(-*gä)
1SG.GEN 3SG-GEN a.lot money give-PERF.ADN-3SG.POSS-GEN who-DAT
(ikän) lik]-i-ni bil-gü-m bar.
COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
‘I want to know to whom it was that he gave a lot of money.’

b. meniŋ [[u-niŋ nurğun pul bär-gän-i]-niŋ kim(-*gä)
1SG.GEN 3SG-GEN a.lot money give-PERF.ADN-3SG.POSS-GEN who-DAT
(ikän) lik]-i-ni bil-gü-m bar
COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have

The pseudo-sluicing analysis of the reduced question in (6b) is shown in (7a), which contains an empty pronominal subject. Further, the empty pronoun can be spelled out, as shown in (7b). Next, the reduced cleft analysis is shown in (8). The full-fledged cleft counterpart of the reduced

question in (6b) is shown in (8a). The embedded cleft sentence includes a presuppositional clause, a *wh*-pivot, a copula, and a COMP. The presuppositional clause is marked genitive, which functions as the subject of the embedded clause. When the genitive-marked presuppositional clause is elided, indicated with grey shading in (8b), the resulting structure is identical to the reduced question. Ellipsis of the presuppositional clause is independently allowed in Uyghur, as discussed in chapter 4.

Turning to RQMW in Uyghur, remnants in RQMW must be case-marked. Further, the presence of the copula in RQMW is not optional. Since the cleft construction in Uyghur allows neither case-marked pivots nor multiple pivots, RQMW cannot be derived from cleft sentences. Also, the pseudo-sluicing analysis cannot explain cases of reduced questions with multiple remnants. I argue that RQMW can be explained by an in-situ analysis, as in (9).

(9) a. Biz-niŋ matematika muällim-imiz bir oquğuči-ni bir sinip-qa
1PL-GEN math teacher-1PL.POSS one student-ACC one classroom-DAT
kir-güz-di-Ø,
enter-CAUS-PST-3SG
'The math teacher of our class let a student enter a classroom,'

b.? lekin män-Ø [kim-ni qaysi sinip-qa ikän lik]-i-ni
but 1SG-NOM who-ACC which classroom-DAT COP COMP-3SG.POSS-ACC
bil-mä-y-män.
know-NEG-NPST-1SG
'lit. but I don't know whom which classroom.'

c. lekin män-Ø [$_{\text{ForceP}}$[$_{\text{FocP}}$[$_{\text{FinP}}$ u-niŋ kim-ni qaysi sinip-qa
but 1SG-NOM 3SG-GEN who-ACC which classroom-DAT
kir-güz-gän] ikän$_{\text{Foc}}$] lik$_{\text{Force}}$]-i-ni bil-mä-y-män.

enter-CAUS-PERF.NOML COP COMP-3SG.POSS-ACC know-NEG-NPST-1SG

'lit. but I don't know it was that he let whom enter which classroom.'

d. lekin män-Ø [$_{ForceP}$[$_{FocP}$[$_{FinP}$ u-niŋ kim-ni qaysi sinip-qa

but 1SG-NOM 3SG-GEN who-ACC which classroom-DAT

kir-güz-gän] ikän$_{Foc}$] lik$_{Force}$]-i-ni bil-mä-y-män

enter-CAUS-PERF.NOML COP COMP-3SG.POSS-ACC know-NEG-NPST-1SG

The sentence in (9a) antecedes the reduced question in (9b). The reduced question contains two case-marked *wh*-remnants, the copula *ikän*, and the COMP. I argue that the reduced question can be derived from (9c). (9c) is an in-situ focus sentence, headed by *ikän*, which functions as a focus marker. Applying nonconstituent deletion to (9c), as indicated with grey shading in (9d), we obtain the reduced question in (9b). Note that the deletion does not affect the copula since it functions as the Foc head. The in-situ analysis can explain the presence of the copula and the case-matching effect observed in RQMW in Uyghur.

Chapter 5 focuses on RQMW in Mandarin Chinese (MC). RQMW with single-pair interpretation have been studied in the previous literature. A typical case is shown in (10) below.

(10) a. Mouren mai-le yi-yang dongxi,

someone buy-ASP one-CL thing

'Someone bought a thing,'

b. danshi wo bu zhidao [na-ge ren na-yang dongxi].

but I not know which-CL person which-CL thing

'lit. but I don't know which person which thing.'

(cited from Wang and Han 2018: 611)

c. danshi wo bu zhidao [(shi) na-ge ren (yiji) (shi) na-yang dongxi].

but I not know COP which-CL person and COP which-CL thing

‘but I don’t know which person and which thing.’

d. danshi wo bu zhidao [[*pro* (shi) na-ge ren] (yiji) [*pro* (shi) na-yang dongxi]]
but I not know he COP which-CL person and it COP which-CL thing
‘but I don’t know which person (he) was and which thing (it) was’

e. danshi wo bu zhidao [[ta shi na-ge ren] yiji [ta shi na-yang dongxi]].
but I not know he COP which-CL person and it COP which-CL thing
‘but I don’t know which person he was and which thing it was.’

The sentence in (10a) antecedes the reduced questions in (10b-c). In (10a), the correlates of the remnants are existential quantifiers. Reduced questions like (10) have single-pair readings since they are answered with a single pair of a person and an item. In the reduced question, the copula *shi* can appear with the remnants. Moreover, the conjunction *yiji* is allowed to appear, as in (10c). Cases with single-pair interpretation can be explained by a multi-clausal analysis, i.e., multiple pseudo-sluiced clauses conjoined, as illustrated in (10d-e). In line with the pseudo-sluicing analysis, the reduced question contains two pseudo-sluiced clauses, each having a null pronominal subject, as in (10d). Further, the null subjects can be spelled out, as in (10e).

Since the previous literature has discussed cases of RQMW with single-pair interpretation, I focus on cases of RQMW with pair-list interpretation, as shown in (11).

(11) Context: There were three researchers, John, Lili, and Mary, each of whom had an adventure at a different place. Lisi and I were aware of this situation. I said to Lisi:

a. Mei-ge yanjiuzhe ge zai yi-ge difang tan-guo-xian,

every-CL researcher each at one-CL place adventure-ASP

'Every researcher had an adventure at a (different) place,'

b.? wo xiang zhidao [(shi) na-ge yanjiuzhe zai na-ge difang].

I want know FOC which-CL researcher at which-CL place

'I want to know which researcher at which place.'

In (11a), which is intended to antecede (11b), the first correlate is a universal quantifier, and the second correlate is an existential quantifier. The reduced question has pair-list interpretation since it is answered with pairs of a researcher and a place. I argue that cases with pair-list interpretation cannot be explicated by the multi-clausal analysis but by a single-clausal analysis. I follow the movement-and-deletion analysis put forth by Abels and Dayal (2022), as in (12).

(12) a. [$_{FocP}$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ na-ge yanjiuzhe zai na-ge difang

FOC which-CL researcher at which-CL place

tan-guo-xian]]]

adventure-ASP

'which researcher had an adventure at which place'

b. [$_{FocP}$ na-ge yanjiuzhe$_i$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ t$_i$ zai na-ge difang

which-CL researcher FOC at which-CL place

tan-guo-xian]]] ①

adventure-ASP

c. [$_{FocP}$ na-ge yanjiuzhe$_i$ [$_{Foc'}$ zai na-ge difang$_j$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ t$_i$ t$_j$

which-CL researcher at which-CL place FOC

tan-guo-xian]]]] ① ②

adventure-ASP

d. [$_{FP}$ shi$_k$ [$_{FocP}$ na-ge yanjiuzhe$_i$ [$_{Foc'}$ zai na-ge difang$_j$ [$_{Foc'}$ t$_{kFoc}$

FOC which-CL researcher at which-CL place

[$_{IP}$ t_i t_j tan-guo-xian]]]]]

adventure-ASP

e. [$_{FP}$ shi_k [$_{FocP}$ na-ge $yanjiuzhe_i$ [$_{Foc'}$ zai na-ge $difang_j$ [$_{Foc'}$ t_{kFoc}

FOC which-CL researcher at which-CL place

[$_{IP}$ t_i t_j tan-guo-xian]]]]]

adventure-ASP

The reduced question in (11b) is derived from the multiple *wh*-question in (12a) containing the focus marker *shi*. First, the subject *wh*-phrase undergoes overt movement to the specifier position of FocP, as in (12b). Note that overt focus movement of *wh*-phrases is independently allowed in MC. Next, the second *wh*-phrase undergoes covert phrasal movement to the lower specifier position of FocP, as shown by the dashed arrow in (12c). Subsequently, *shi* is moved to the head of a higher functional projection to c-command the fronted *wh*-phrases (Cheung 2014), as in (12d). Lastly, IP deletion is applied to the structure, indicated with grey shading in (12e); the reduced question is thereby derived. According to Abels and Dayal (2022), the covertly moved *wh*-phrase is realized overtly under PF deletion. My study shows that reduced questions with single-pair interpretation exhibit different properties from those with pair-list interpretation. Thus, I argue that reduced embedded questions in MC should be explained by a hybrid analysis: the multi-clausal analysis combined with the single-clausal analysis.

Chapter 6 summarizes the entire dissertation. It can be seen that different languages employ distinct strategies to derive reduced questions. The differences are attributed to language-specific properties. I hope that this dissertation lays a foundation for further research on sluicing in CM, Uyghur, and MC and contributes to the study on ellipsis in general.

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Contents

Abbreviations, Symbols, and Latin transcriptions

Abbreviations

ABL	ablative
ACC	accusative
ADVL	adverbializer
ADN	adnominal
ASP	aspect
AUX	auxiliary
CAUS	causative
C	complementizer
CL	classifier
COM	comitative
COMP	complementizer
CON	conclusive
CONTI	continuous
COP	copula
CP	complementizer phrase
DAT	dative
DEROG	derogative
DES	desiderative
DP	determiner phrase
DUR	durative

F	feminine
FinP	finite phrase
FOC	focus marker
FocP	focus phrase
ForceP	force phrase
FP	functional projection
FUT	future tense
GEN	genitive
HBT	habitual
HON	honorific
IMP	imperative
INDIC	indicative
INF	infinitive
INSTR	instrumental
IP	inflectional phrase
LOC	locative
M	masculine
MOD	modal
N	neuter
NEG	negation
NOM	nominative
NOML	nominalizer
NPST	non-past tense
PASS	passive

PERF	perfective
PERM	permissive
PL	plural
POSS	possessive
POSTP	postposition
PPC	personal possessive clitic
PROG	progressive
PRT	particle
PRS	present tense
PST	past tense
Q	question marker
RECP	reciprocal
REF	reflexive
RES	respectful
RM	relativization marker
RQMW	reduced embedded questions with multiple *wh*-remnants
SELF	self-benefiting
TEM	temporal
TOP	topic marker
VP	verb phrase
1PL	first-person plural
1SG	first-person singular
2PL	second-person plural
2SG	second-person singular

3PL	third-person plural
3SG	third-person singular

Judgments and Symbols

*	completely degraded
*?	very degraded
??	marginally acceptable
?	acceptable
[no symbol]	completely acceptable
(…)	optional
(*…)	must be omitted
*(…)	must be present

Latin transcriptions

Latin transcriptions for Chakhar Mongolian

Mongolian script	Latin	IPA
ᠠ	a	[a]
ᠡ	e	[ə]
ᠢ	i	[i]
ᠣ	o	[ɔ]
ᠤ	u	[ʊ]
ᠥ	ö	[o]

ཧུ	ü	[u]
ཉ	n	[n]
ཐ	b	[b]
ཕ	p	[p]
ཁ ; ཀ	χ; x	[χ]; [x]
གྷ ; ག	γ; g	[ɢ]; [g]
ཧ	m	[m]
ལ	l	[l]
ས	s	[s]
ཤ	š	[ʃ]
ཏ	t	[t]
ཌ	d	[d]
ཅ	č	[tʃ]
ཇ	ǰ	[dʒ]
ཡ	y	[j]
ར	r	[r]
ཝ	w	[w]
ང	ng	[ŋ]
ཕ	f	[f]
ཀ	k	[k]
ཧ	h	[h]
ཧླ	lh	[ɬ]
ཟ	z	[dz]

ᶜ	c	[ts]
ᶾ	ž	[ʒ]
ᵉ	ë	[e]

(adapted from Litip 2017)

Latin transcriptions for Uyghur

Uyghur script	Latin	IPA
ئا	a	[ɑ]
ئە	ä	[ɛ]
ئې	e	[e]
ئى	i	[i]
ئو	o	[o]
ئۇ	u	[u]
ئۆ	ö	[ø]
ئۈ	ü	[y]
ز	z	[z]
ژ	ž	[ʒ]
س	s	[s]
ش	š	[ʃ]
غ	ğ	[ʁ]
ف	f	[f]
ق	q	[q]

ك	k	[k]
ب	b	[b]
پ	p	[p]
ت	t	[t]
ج	j	[dʒ]
چ	č	[tʃ]
خ	x	[χ]
د	d	[d]
ر	r	[r]
گ	g	[g]
ڭ	ŋ	[ŋ]
ل	l	[l]
م	m	[m]
ن	n	[n]
ھ	h	[ɦ]
ۋ	w	[w]
ي	y	[j]

(adapted from Litip 2017)

Chapter 1 Introduction

The purpose of this dissertation is to examine multiple sluicing (Ross 1969; Takahashi 1994) in three *wh*-in-situ languages, namely, Chakar Mongolian, Uyghur, and Mandarin Chinese, and to explicate the observed properties of multiple sluicing within the framework of generative syntax (Chomsky 1995; 2000; 2004; Rizzi 1997).

One of the objectives of theoretical linguistics is to study the correspondence between sound and meaning. The sound-meaning correspondence breaks down in ellipsis, a phenomenon in natural languages where parts of a sentence can be omitted (Merchant 2001). The omitted and unpronounced parts can nevertheless be understood in contexts. That is, meaning is conveyed without utterance. Ellipsis has several subvarieties, such as NP ellipsis, VP ellipsis, Gapping, Stripping, and Sluicing (Lobeck 1995; Merchant 2001). This study focuses on sluicing.

Sluicing, coined by Ross (1969), is the elliptic process by which questions like (1b) are converted into reduced forms like (1c).

(1) a. He is writing something,

b. but you can't imagine [what he is writing].

c. but you can't imagine [what].

(cited from Ross 1969: 252)

d. but you can't imagine [$_{CP}$ what$_i$ [$_{IP}$ he is writing t_i]]

The sentence in (1a) antecedes (1b), which contains an embedded *wh*-question, indicated with brackets. The embedded question in (1b) is reduced to only contain a *wh*-phrase in (1c), which

is a sluicing sentence. The full-fledged *wh*-question and the sluicing sentence have the same interpretation. The reduced question can be derived by applying IP ellipsis to the full-fledged embedded question in (1b), indicated with grey shading in (1d) (e.g., Ross 1969; Merchant 2001).

Sluicing has been extensively studied in many *wh*-movement languages, such as English (Lasnik 1999; 2001; Merchant 2001), German (Abels and Dayal 2022; Cortés Rodríguez 2023), Serbo-Croatian (Stjepanović 1999), Russian (Grebenyova 2009), etc. That sluicing is observed in *wh*-movement languages is not surprising since sluicing constructions can be derived by movement of *wh*-phrases, followed by IP deletion. What is interesting is that sluicing is also observed in some *wh*-in-situ languages like Japanese (Takahashi 1994), Hindi (Gribanova and Manetta 2016), etc. *Wh*-in-situ languages do not employ *wh*-movement in question formation. Then, the question is how the sluicing constructions are derived in those languages. Research on sluicing in *wh*-in-situ languages can further the discussions on syntactic *wh*-movement in those languages.

Sluicing in many *wh*-in-situ languages has not been investigated. In order to contribute to the research on sluicing and ellipsis in general, this dissertation will study sluicing in three *wh*-in-situ languages: Chakhar Mongolian, the standard dialect of modern Mongolian spoken in the Inner Mongolia Autonomous Region of China; Uyghur, which is spoken in the Xinjiang Uyghur Autonomous Region of China; and Mandarin Chinese.

The remainder of the chapter is structured as follows: Section 1.1 will present the research questions of the dissertation. Section 1.2 will explain how the data presented in this dissertation were collected. Section 1.3 will show the outline of the dissertation.

1.1 Research questions

This dissertation aims to address the following research questions:

(2) a. Are there reduced embedded questions with multiple remnant *wh*-phrases in the three *wh*-in-situ languages, namely, Chakhar Mongolian, Uyghur, and Mandarin Chinese?

b. If yes, what properties do they have?

c. Can they be analyzed in a unitary manner?

d. If there are differences, how can the differences be explained?

Reduced embedded questions in Chakhar Mongolian (henceforth, CM) and Uyghur have not been discussed in the previous literature. This study sets out to investigate the properties of reduced questions in the two languages and propose theoretical analyses to account for the observed data. Reduced embedded questions in Mandarin Chinese (henceforth, MC) have been examined in the previous literature. According to the prior literature (e.g., Wei 2004; Chiu 2007; Adams and Tomioka 2012; Takahashi and Lin 2012; Park and Li 2013; Li and Wei 2014; 2017; Wang 2018; Wang and Han 2018; Bai and Takahashi 2023b), truncated questions in MC cannot be analyzed in a unitary manner. This study intends to discuss truncated questions in MC and propose a hybrid analysis to explicate the observed properties.

1.2 Data collection

This dissertation includes data from MC, Uyghur, and CM. The MC data were constructed by

me based on my native intuition. I asked other native speakers from China (20 speakers) to judge the acceptability of the sentences on a 7-point Likert scale. The relevant data were translated into CM by two native speakers. Then I asked other native speakers of CM (15 speakers), who are from the Inner Mongolia Autonomous Region of China, to judge the acceptability of the sentences. The speakers were asked to judge whether the sentences were completely acceptable, acceptable, marginally acceptable, very degraded, or completely degraded (see chapter 3 for details). At the same time, the data were translated into Uyghur by two native speakers. Then I asked other native speakers from the Xinjiang Uyghur Autonomous Region of China (15 speakers) to judge the acceptability of the sentences. The speakers were asked to judge whether the sentences were completely acceptable, acceptable, marginally acceptable, very degraded, or completely degraded (see chapter 4 for details).

1.3 The outline of the dissertation

The remainder of this dissertation is organized as follows. Chapter 2 is composed of two parts. The first part will detail four types of sluicing, namely, embedded single sluicing, embedded multiple sluicing, matrix single sluicing, and matrix multiple sluicing, and their properties that are pertinent to the discussion in this dissertation. Then the second part will present theoretical analyses of sluicing constructions. Specifically, I will discuss two approaches: a PF deletion approach and an LF copying approach. Further, some *wh*-in-situ languages have constructions with surface strings resembling sluicing. Crucially, the relevant constructions exhibit properties different from sluicing constructions. Hence, they are referred to as sluicing-like constructions (van Craenenbroeck and Lipták 2006). To account for the sluicing-like constructions, I will present three lines of analyses, namely, the pseudo-sluicing analysis, the reduced cleft analysis,

and the reduced pseudo-cleft analysis, in the second part of chapter 2. Since this dissertation studies *wh*-in-situ languages, the analyses explaining sluicing-like constructions in *wh*-in-situ languages are important.

Chapter 3 will detail my research on reduced embedded single questions and reduced embedded questions with multiple remnants in CM. Chapter 3 mainly consists of three parts. The first part will illustrate some of the syntactic properties of CM and some sentence constructions that are pertinent to the discussion on reduced questions, laying a foundation for studying reduced questions. The second part will examine reduced embedded single questions in CM and their properties. I will argue that truncated single questions in CM can be analyzed in terms of the pseudo-sluicing analysis, the reduced pseudo-cleft analysis, or the reduced cleft analysis. The last part of chapter 3 will investigate reduced embedded questions with multiple remnants in CM. I will argue that they can be analyzed in terms of the reduced cleft analysis but not the pseudo-sluicing analysis or the reduced pseudo-cleft analysis.

Chapter 4 will present my research on reduced embedded single questions and reduced embedded questions with multiple remnants in Uyghur. This chapter mainly comprises three parts. The first part will illustrate some of the syntactic properties of Uyghur and some sentence constructions that are relevant to the discussion on reduced questions, setting the groundwork for the research on reduced questions. The second part will detail reduced embedded single questions in Uyghur. I will argue that they can be analyzed in terms of the pseudo-sluicing analysis or the reduced cleft analysis. The third part of chapter 4 will focus on reduced embedded questions with multiple remnants in Uyghur and their properties. I will argue that they can be analyzed in terms of an in-situ analysis. Additionally, I will provide arguments against analyzing them in terms of the pseudo-sluicing analysis, the reduced cleft analysis, and a focus movement analysis.

Chapter 5 will present my study on reduced embedded questions in MC. This chapter is divided into two parts. The first part will review previous studies on reduced embedded single questions and reduced embedded questions with multiple remnants in MC. Since reduced questions with single-pair interpretation have been studied in the previous literature, the second part of this dissertation will focus on reduced embedded questions with pair-list interpretation. I will argue that reduced embedded questions with multiple remnants in MC can be accounted for by a hybrid analysis. Specifically, cases with single-pair interpretation can be explained by a multi-clausal analysis, following the previous literature (Adams and Tomioka 2012; Li and Wei 2014). Cases with pair-list interpretation will be accounted for by a single-clausal analysis in terms of movement and deletion as put forth by Abels and Dayal (2022).

Chapter 6 will conclude this study. I will summarize the entire dissertation, consider theoretical and empirical consequences of my findings and proposals, and point out remaining problems and possible directions in the future research.

Chapter 2 Multiple sluicing and theoretical analyses

This chapter aims to introduce sluicing constructions to lay a foundation for discussing reduced questions in Chakhar Mongolian, Uyghur, and Mandarin Chinese. This chapter is composed of two parts. The first part introduces four types of sluicing constructions with cross-linguistic examples and presents some of their properties that are essential to this dissertation. The second part reviews theoretical analyses that explain the sluicing constructions.

2.1 Types of sluicing and their properties

Coined by Ross (1969), sluicing is the ellipsis process by which questions like (1a) are converted into reduced forms like (1b).

(1) a. He is writing something, but you can't imagine [what he is writing].
b. He is writing something, but you can't imagine [what].
(cited from Ross 1969: 252)

(1a) and (1b) have the same interpretation, though the embedded clause in (1b), indicated with brackets, only contains a *wh*-phrase. This remaining *wh*-phrase is called a *wh*-remnant, which has a corresponding part in the preceding clause, i.e., *something* in (1b), which is called a correlate.

According to the previous literature (Merchant 2001; Abels and Dayal 2022), sluicing is observed cross-linguistically, which can be divided into four types based on the number of remnants and where the sluicing sentence occurs. One type is called single sluicing, such as in

(1b), where the sluicing sentence has one remnant. Sluicing also allows the presence of multiple remnants, which results in another type, called multiple sluicing, coined by Takahashi (1994). An example is shown in (2).

(2) ? Everybody brought something (different) to the potluck, but I couldn't tell you [who what].
(cited from Merchant 2001: 112)

Anteceded by the first clause in (2), the truncated question contains two *wh*-remnants, *who* and *what*. The sluicing sentences in (1b) and (2) appear in embedded clauses; these cases are called embedded sluicing. We can further specify the types of sluicing in (1b) and (2) as embedded single sluicing and embedded multiple sluicing, respectively.

Sluicing can also appear in matrix clauses, called matrix sluicing (Lasnik 1999). Cases of matrix sluicing containing one remnant per sentence are known as matrix single sluicing (Lasnik 1999; Hasegawa 2008). Consider (3), where two speakers, A and B, engage in a conversation:

(3) A: Mary will see someone.
B: Who?
(cited from Lasnik 1999: 206)

Speaker A's utterance serves to antecede B's utterance, which only contains a *wh*-phrase *who*.

Moreover, cases of matrix sluicing consisting of multiple remnants are called matrix multiple sluicing (Stjepanović 2003), as shown in (4), where two speakers, A and B, engage in a conversation.

(4) Serbo-Croatian

A: Neko voli nekog.
somebody.NOM loves somebody.ACC
'Somebody loves somebody.'

B: Ko koga?
who.NOM who.ACC
'lit. Who whom?'
(cited from Stjepanović 2003: 256-257)

Anteceded by A's utterance, B's utterance is a reduced question consisting of two *wh*-remnants. The remnants, *ko* 'who.NOM' and *koga* 'who.ACC,' have overt correlates in A's utterance, i.e., *neko* 'somebody.NOM' and *nekog* 'somebody.ACC,' respectively.

Being an elliptical construction, sluicing generally requires a linguistic antecedent, as observed by Hankamer and Sag (1976). Let us consider the examples below.

(5) Hankamer: Someone's just been shot.
Sag: Yeah, I wonder [who].
(cited from Hankamer and Sag 1976: 408)

(6) Context: Hankamer produces a gun, points it offstage and fires, whereupon a scream is heard.

Sag: # Jesus, I wonder [who].

(ibid.)

The intended meaning of Sag's utterances in (5) and (6) is *I wonder who has just been shot*. While Sag's utterance in (5) is felicitous with Hankamer's utterance as an antecedent, Sag's utterance in (6) is infelicitous without a verbally expressed antecedent. This requirement of a linguistic antecedent is a property of elliptical constructions, including sluicing (see also Takahashi 1994).

2.1.1 Embedded single sluicing

This section focuses on embedded single sluicing and some of its properties that are essential to this dissertation.

2.1.1.1 Basic phenomena

In embedded single sluicing in English, all of the *wh*-words, except *whether*, can appear as remnants, as illustrated in (7) and (8) (e.g., Ross 1969; Nishiyama, Whitman, and Yi 1996).

(7) a. He is writing something, but you can't imagine [what].

(cited from Ross 1969: 252)

b. Someone called, but I can't tell you [who].

(cited from Merchant 2001: 3)

c. Ralph knows that I went somewhere, but his wife doesn't know [where].

(adapted from Ross 1969: 272)

(8) a. Ralph knows that I went, but his wife doesn't know [when/where/why/how /*whether].

(cited from Ross 1969: 272)

b. She served the students, but I don't know [what].

(cited from Chung, Ladusaw, and McCloskey 1995: 248)

c. A car is parked on the lawn—find out [whose].

(cited from Merchant 2001: 3)

d. He's writing, but you can't imagine [with whom].

(cited from Chung, Ladusaw, and McCloskey 1995: 241)

e. This opera was written in the 19th century, but we're not sure [by whom].

(cited from Chung, Ladusaw, and McCloskey 1995: 241)

As shown in (7) and (8), nominal *wh*-phrases, adverbial *wh*-phrases, and prepositional *wh*-phrases can be remnants in sluicing sentences. Importantly, there is a major difference between the sluicing sentences in (7) and (8). The remnants in (7) all have overt correlates in the respective antecedent clauses. The remnants in (8), on the other hand, do not have overt correlates in the corresponding antecedent clauses. Cases of sluicing in which remnants have covert correlates are called sprouting, coined by Chung, Ladusaw, and McCloskey (1995). For instance, in (8b), the verb *serve* can license an optional NP argument that is not realized in the antecedent clause. The argument structure of the verb *serve* allows integration of the NP *wh*-remnant *what* in the sluiced clause (see Chung, Ladusaw, and McCloskey 1995 for detailed discussions).

In addition to *wh*-remnants, non-*wh*-remnants are allowed to appear in the relevant constructions in some languages, such as Japanese and Kashmiri (Kuwabara 1996; 1997; Chiu, Fuji, and Sugawa 2008; Takahashi and Lin 2012). Consider the examples below:

(9) Japanese

a. Ken-wa [$_{CP}$ Gaga-ga Kyoto-ni kuru to] itta.
Ken-TOP Gaga-NOM Kyoto-to come that said
'Ken said that Gaga will come to Kyoto.'

b. Takuya-wa [$_{CP}$ Sendai-ni to] itta.
Takuya-TOP Sendai-to that said
'lit. Takuya said that to Sendai.'
(cited from Takahashi and Lin 2012: 140)

(10) Japanese

a. Watasi-wa itinen mae soko-de Suzuki-ni atteiru yooda ga,
I-TOP a.year ago there-at Suzuki-DAT met seem but
'It seems that I met Suzuki there a year ago, but'

b. watasi-wa [$_{CP}$ Suzuki-ni kadooka] oboeteinai.
I-TOP Suzuki-DAT whether remember.not
'lit. I don't remember whether Suzuki.'
(cited from Kuwabara 1997: 63)

Anteceded by (9a), the reduced embedded clause in (9b) contains a non-*wh*-remnant *Sendai-ni* 'Sendai-DAT,' accompanied by the complementizer *to*. Similarly, in (10b), a non-*wh*-remnant *Suzuki-ni* 'Suzuki-DAT' appears, which is followed by the complementizer *kadooka* 'whether.'

The examples in (9) and (10) reveal two differences between sluicing in English and Japanese. The first difference is that non-*wh*-remnants are allowed in reduced clauses in Japanese but not in English, as shown in (11).[1]

(11) * John said that Mary bought something, and I heard [a car].
(cited from Nakano 2022: 96)

The sluicing sentence in (11) is completely degraded.

Moreover, sluicing in Japanese allows the presence of an overt complementizer *to* 'that' or *kadooka* 'whether,' neither of which is allowed to appear in English sluicing (Bhattacharya and Simpson 2012; Hoyt and Teodorescu 2012). See (12) for an illustration.

(12) a.* Ken said that Gaga will come to Kyoto, and Takuya said [that to Sendai].
b.* It seems that I met Suzuki there a year ago, but I don't remember [whether Suzuki].

The sluicing sentences in (12) containing complementizers are not acceptable in English.

[1] In English sluicing constructions, non-*wh*-remnants are acceptable only in cases involving strong contrastive focus (Bhattacharya and Simpson 2012), as illustrated in (i).

(i) Sue just left with someone, but I don't think [with YOUR date].
(cited from Bhattacharya and Simpson 2012: 198)

In (i), the remnant *with your date* bears strong focus information.

2.1.1.2 Properties of embedded single sluicing

This section presents two properties of embedded single sluicing: the island-insensitivity effect and the case-matching effect.

2.1.1.2.1 The island-insensitivity effect

As discussed in Ross 1967, islands are syntactic domains, across which filler-gap dependencies cannot be established. A filler-gap dependency involves a displaced constituent, which is called a filler, and the canonical position of the filler, which is called a gap (Ross 1967; Chomsky 1977; Liu et al. 2022). See (13) for an illustration.

(13) Who did Mary like __?

(13) is a normal *wh*-question in English, where the filler-gap dependency can be established. The displaced element, i.e., the filler, is *who*. And the gap is indicated by the underscore. In contrast, filler-gap dependencies are blocked crossing syntactic islands. In other words, moving elements out of syntactic islands results in degraded sentences.

Next, let us look at five of the island constraints in (14-18). (14a) is the definition of the Coordinate Structure Constraint (CSC), and (14b) is an example of a violation of the constraint.

(14) CSC

a. In a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct.

(cited from Ross 1967: 161)

b.* They persuaded Kennedy and some other senator to jointly sponsor the legislation, but I can't remember [*which one* they persuaded Kennedy and __ to jointly sponsor the legislation].

(cited from Chung, Ladusaw, and McCloskey 1995: 273)

In (14b), a conjunct, *which one*, is moved out of the coordinate phrase, resulting in the unacceptability of the sentence.

(15a) presents the definition of the Complex NP Constraint (CNPC). A complex NP is an NP that contains an NP head and a modifying relative clause or an appositive clause.

(15) CNPC

a. No element contained in a sentence dominated by a noun phrase with a lexical head noun may be moved out of that noun phrase by a transformation.

(cited from Ross 1967: 127)

b. Relative clause

* She kissed a man [who bit one of my friends], but Tom doesn't realize [*which one of my friends* she kissed a man [who bit __]].

(cited from Ross 1969: 276)

c. Appositive clause

* I believe the claim [that he bit someone], but they don't know [*who* I believe the claim [that he bit __]].

(cited from Ross 1969: 277)

In (15b), the *wh*-phrase *which one of my friends* is moved out of the relative clause, resulting in the ungrammaticality of (15b). Similarly, in (15c), the *wh*-phrase *who* is moved out of the appositive clause, causing the ungrammaticality of (15c).

The definition of the Sentential Subject Constraint (SSC) is presented in (16a), and a violation of which is shown in (16b).

(16) SSC

a. No element dominated by an S may be moved out of this S if that node S is dominated by an NP which itself is immediately dominated by S.
(cited from Ross 1967: 243)

b.* [That he'll hire someone] is possible, but I won't divulge [*who* [that he'll hire _]] is possible].
(cited from Ross 1969: 277)

In (16b), the *wh*-phrase *who* is moved out of the subject clause, causing the ungrammaticality of the sentence.

The Left Branch Condition (LBC) is defined in (17a). LBC bans extraction of NPs, possessors, attributive adjectival phrases, amount modifiers, etc. (Merchant 2001).

(17) LBC

a. No NP which is the leftmost constituent of a larger NP can be reordered out of this NP by a transformational rule.
(cited from Ross 1967: 207)

b.* They hired a tall forward for the team—guess [*how tall* they hired a __ forward for the team].

(adapted from Merchant 2001: 88)

(17b) is an example of moving the attributive adjectival *wh*-phrase *how tall* out of the DP, *a forward*. (17b) violates the LBC, which causes the ungrammaticality of the sentence.

Lastly, let us look at the Adjunct Condition (AC). Huang (1982) proposes the Condition on Extraction Domain and identifies adjuncts as islands for extraction. Movement of an element out of the adjunct island causes the ungrammaticality of the relevant sentence.

(18) a. Condition on Extraction Domain

A phrase A may be extracted out of a domain B only if B is properly governed.

(cited from Huang 1982: 505)

Proper government

A properly governs B if and only if A governs B and

(a) A is a lexical category, or

(b) A is co-indexed with B.

(cited from Huang 1982: 471)

b.* *Who* did Mary cry [after John hit __]?

(cited from Huang 1982: 503)

c.* Ben will be mad [if Abby talks to one of the teachers], but she couldn't remember [*which (of the teachers)* Ben will be mad [if she talks to __]].

(cited from Merchant 2001: 88)

(18b) and (18c) are two examples of the violation of the AC. In (18b), linking of the *wh*-filler *who* to a gap inside the adjunct clause results in an ungrammatical sentence. Likewise, in (18c), moving the *wh*-phrase *which (of the teachers)* out of the adjunct clause violates the AC.

Thus far, we have seen five island constraints, which prohibit movement of an element out of them. One of the important observations made in Ross 1969 is that when sluicing is applied to the unacceptable island-violating sentences, the degree of unacceptability is significantly lessened in the corresponding sluicing sentences. Consider the sluicing sentences in (19-23) below:

(19) CSC

? They persuaded Kennedy and some other senator to jointly sponsor the legislation, but I can't remember [*which one*].

(cited from Chung, Ladusaw, and McCloskey 1995: 273)

(20) CNPC

a. Relative clause

? She kissed a man who bit one of my friends, but Tom doesn't realize [*which one of my friends*].

(cited from Ross 1969: 276)

b. Appositive clause

?? I believe the claim that he bit someone, but they don't know [*who*].

(cited from Ross 1969: 277)

(21) SSC

?? That he'll hire someone is possible, but I won't divulge [*who*].

(cited from Ross 1969: 277)

(22) LBC

They hired a tall forward for the team-guess [*how tall*]!

(cited from Merchant 2001: 88)

(23) AC

Ben will be mad if Abby talks to one of the teachers, but she couldn't remember [*which*].

(cited from Merchant 2001: 88)

The sentences in (19-23) are obtained from applying sluicing to the sentences in (14-18), respectively. Although divergent judgments on the sluicing sentences in (19-23) have been reported in the prior literature, it has been acknowledged that the sluicing sentences are indeed more acceptable than their corresponding non-elliptic counterparts (Ross 1969; Lasnik 2001; Merchant 2001). As stated by Ross (1969), "if a node is moved out of its island, an ungrammatical sentence will result. If the island forming node doesn't appear in surface structure, violations of lesser severity will (in general) ensue" (Ross 1969, p. 277). This phenomenon is known as island repair in sluicing.

2.1.1.2.2 The case-matching effect

Ross (1969) observes that in sluicing constructions, the case of a remnant matches that of its correlate. Let us see the example (24).

(24) German

a. Er will jemandem schmeicheln,
he wants someone.DAT flatter
'He wants to flatter someone,'

b. aber sie wissen nicht [wem/*wen].
but they know not who.DAT/who.ACC
'but they don't know who.'
(cited from Ross 1969: 253)

c. aber sie wissen nicht [wem/*wen er schmeicheln will].
but they know not who.DAT/who.ACC he flatter wants
'but they don't know who he wants to flatter.'
(cited from Merchant 2001: 90)

(24a) antecedes the reduced question in (24b) and its full-fledged counterpart in (24c). The remnant phrase in the reduced question must appear in dative case, just as its correlate *jemandem* 'someone' in (24a) and the *wh*-phrase *wem* 'who' in (24c). The remnant cannot appear in accusative case, though the verb *wissen* 'know' assigns accusative case to its object, as in (25).

(25) Sie wissen die Antwort/*der Antwort nicht.
they know the.ACC.F answer.F/the.DAT.F answer.F not
'They don't know the answer.'
(cited from Merchant 2001: 43)

The phenomenon where the case of a remnant phrase matches that of its correlate is known as the case-matching effect (Merchant 2001). According to Ross (1969), the observed case-matching effect indicates that the sluiced clause in (24b) should have a full-fledged structure underlyingly, like its non-elliptic counterpart in (24c).

Moreover, Merchant (2001) observes that the case-matching effect is held true across islands. Consider (26) below:

(26) a. Sie will jemanden finden, [der einem der Gefangenen
she wants someone.ACC find who one.DAT of.the prisoners
geholfen hat],
helped has
'She wants to find someone who helped one of the prisoners,'

b. aber ich weiß nicht, [*welcher/*welchern/welchelm].
but I know not which.NOM/which.ACC/which.DAT
'but I don't know which.'
(cited from Merchant 2001: 91)

(26a), which contains a relative clause, is the antecedent for the sluiced clause in (26b). The correlate *einem der Gefangenen* 'one of the prisoners,' which is in the relative clause, is assigned dative case by the verb *geholfen* 'helped.' Correspondingly, the remnant *wh*-phrase in the sluiced clause, *welchelm* 'which,' must also appear in dative case.

2.1.2 Embedded multiple sluicing

This section focuses on embedded multiple sluicing, where two or more remnants are allowed (Bolinger 1978; Takahashi 1994; Merchant 2001; Abels and Dayal 2022). Consider the example below:

(27) ?* Someone saw something, but I can't remember [who what].
(cited from Lasnik 2014: 8)

The multiple-sluiced clause in (27) consists of two remnants, *who* and *what*, whose correlates in the antecedent clause are two existential quantifiers, namely, *someone* and *something*. According to the previous literature (Fox and Pesetsky 2003; Richards 2010; Lasnik 2014), multiple sluicing constructions in English with two existential quantifiers as correlates are degraded. On the other hand, multiple sluicing sentences, which have a universal quantifier and an existential quantifier as correlates, are acceptable or only mildly deviant (e.g., Bolinger 1978; Nishigauchi 1998; Merchant 2001; 2006; Barros and Frank 2016; Kotek and Barros 2018), as illustrated in (28).

(28) ? Everyone brought something (different) to the potluck, but I couldn't tell you [who what].
(cited from Merchant 2001: 112)

It is worth noting that pair-list reading can be elicited from (28). That is, (28) can be answered by supplying pairs of a person and an item, such as *Mary brought a bottle of wine, Susan brought a salad, and John brought a dish of macaroni and cheese*.

The acceptability of multiple sluicing sentences in English is under debate (Takahashi 1994; Nishigauchi 1998; Merchant 2001; 2006; Fox and Pesetsky 2003; Richards 2010; Hoyt and Teodorescu 2012; Lasnik 2014; Barros and Frank 2016; 2022; Abels and Dayal 2017; 2022; Kotek and Barros 2018; Cortés Rodríguez 2023). Cortés Rodríguez (2023) initiates formal experimental studies to examine the acceptability of multiple sluicing in English. The results reveal that multiple sluicing in English is a marked construction whose acceptability rating is in the 4 range on a 7-point Likert scale. On the other hand, multiple sluicing constructions are well accepted in some other languages, like Japanese and German (Takahashi 1994; Merchant 2001; Cortés Rodríguez 2023). Consider the examples (29) and (30):

(29) Japanese

a. John-ga [dareka-ga nanika-o katta to] itta.
John-NOM someone-NOM something-ACC bought that said
'John said someone bought something.'

b. Mary-wa [dare-ga nani-o ka] siritagatteiru.
Mary-TOP who-NOM what-ACC Q wants.to.know
'lit. Mary wants to know who what.'
(cited from Takahashi 1994: 284)

(30) German

a. Jemand hat etwas gesehen,
someone.NOM has something.ACC seen
'Someone saw something,'

b. aber ich weiß nicht, [wer was].
but I know not who.NOM what.ACC

‘lit. but I don’t know who what.’

(cited from Merchant 2001: 111)

Anteceded by (29a) and (30a), the reduced embedded questions in (29b) and (30b), respectively, are acceptable. It is worth noting that the *wh*-remnants in (29b) and (30b) are all case-marked. As discussed in Cortés Rodríguez 2023, multiple sluicing constructions are well accepted in languages with rich case morphology like Japanese and German.

2.1.2.1 Basic phenomena

As demonstrated in the examples (27-30), *wh*-phrases can be remnants in embedded multiple sluicing. As a matter of fact, non-*wh*-phrases can also appear as remnants. See below for an example from Khalkha Mongolian, the standard dialect of modern Mongolian spoken in Mongolia.

(31) Khalkha Mongolian

a. Bat-Ø [$_{CP}$ Oyuna-g uchigdur Sendai-d uhri-n hel-ig
Bat-NOM Oyuna-ACC yesterday Sendai-LOC cow-GEN tongue-ACC
id-sen gej] bodo-j bai-gaa ch,
eat-PERF that think-INF be-NPST but
‘Bat thinks that Oyuna ate cow tongue in Sendai yesterday, but’

b.? bi [$_{CP}$ unudru sushi gej] bodo-j bai-gaa.
I today sushi that think-INF be-NPST

‘lit. I think that today sushi.’

(cited from Sakamoto 2012: 54)

Anteceded by (31a), the reduced embedded clause in (31b) containing two non-*wh*-remnants, *unudru* ‘today’ and *sushi* ‘sushi,’ is acceptable in Khalkha Mongolian.

In addition to non-*wh*-remnants, heterogenous remnants, i.e., a combination of a *wh*-phrase and a non-*wh*-phrase, are allowed, as shown in (32) (Kuwabara 1996; Takahashi and Lin 2012).

(32) Japanese

a. Ken-wa [dono otokonoko-ga kyoositu-de benkyoosita ka] sitteiru.
Ken-TOP [which boy-NOM classroom-at studied Q know
‘Ken knows which boy studied at the classroom.’

b. Yumi-wa [dono onnanoko-ga tosyokan-de ka] sitteiru.
Yumi-TOP [which girl-NOM library-at Q know
‘lit. Yumi knows which girl at the library.’
(cited from Takahashi and Lin 2012: 142)

The sentence in (32a) is intended to antecede the reduced embedded clause in (32b) containing a *wh*-remnant *dono onnanoko-ga* ‘which girl-NOM’ and a non-*wh*-remnant *tosyokan-de* ‘library-at.’ Moreover, the remnants are accompanied by a question particle, *ka*.

In the multiple sluicing examples presented above, all of the remnants have overt correlates in the corresponding antecedent clauses. Cases of multiple sluicing without overt correlates, i.e., sprouting, are also allowed (Takahashi and Lin 2012). Consider (33) and (34):

(33) Japanese

a. Dareka-ga kaikosareta sooda.
someone-NOM was.fired I.heard
'I heard someone was fired.'

b. Dakedo boku-wa [dare-ga itu donna riyuu-de ka] soozoodekinai.
but I-TOP who-NOM when what reason-for Q cannot.imagine
'lit. But I cannot imagine who when for what reason.'
(cited from Takahashi and Lin 2012: 131)

(34) a. Dareka-ga nanika-o kakusita rasii.
someone-NOM something-ACC hid likely
'It seems someone hid something.'

b. Boku-wa [dare-ga nani-o doko-ni donna huu-ni ka]
I-TOP who-NOM what-ACC where-at what manner-in Q
soozoodekinai.
cannot.imagine
'lit. I cannot imagine who what where in what way.'
(ibid.)

The sentences in (33a) and (34a) antecede the reduced questions in (33b) and (34b), respectively. In (33b), the remnants *itu* 'when' and *donna riyuu-de* 'what reason-for' do not have overt correlates in (33a). Similarly, in (34b), the remnants *doko-ni* 'where-at' and *donna huu-ni* 'what manner-in' do not have overt correlates in (34a).

2.1.2.2 Properties of embedded multiple sluicing

This section details four properties of embedded multiple sluicing: adherence to the clause-mate condition, the island amelioration effect, the superiority effect, and the case-matching effect.

2.1.2.2.1 Adherence to the clause-mate condition

Takahashi (1994) observes that remnants in multiple sluicing must be clause-mates, which means that remnants must originate from the same clause. Let us start our discussion by comparing (35) with (36).

(35) Japanese

a. Mary-ga [dareka-ga nanika-o katta to] itta ga,
Mary-NOM someone-NOM something-ACC bought that said but
'Mary said someone bought something,'

b. John-wa [dare-ga nani-o ka] oboeteinai.
John-TOP who-NOM what-ACC Q not.remembers
'lit. but John doesn't remember who what.'
(cited from Takahashi 1994: 285)

(36) Japanese

a. Dareka-ga [John-ga nanika-o katta to] itteita ga,
someone-NOM John-NOM something-ACC bought that said but
'Someone said John bought something,'

b.* Mary-wa [dare-ga nani-o ka] oboeteinai.
Mary-TOP who-NOM what-ACC Q not.remembers
'lit. but Mary doesn't remember who what.'
(cited from Takahashi 1994: 286)

Anteceded by (35a), the multiple sluicing sentence in (35b) contains two *wh*-remnants, *dare-ga* 'who-NOM' and *nani-o* 'what-ACC.' The correlates of the remnants are *dareka* 'someone' and *nanika* 'something,' both belonging to the embedded clause in (35a). In contrast, the correlates of the remnants in (36b) do not belong to the same clause. That is, the correlate *dareka* 'someone' is in the matrix clause, and *nanika* 'something' is in the embedded clause. The sluiced clause in (35b) is acceptable, while that in (36b) is not. This comparison indicates that the clause-mate effect is observed in multiple sluicing constructions. According to Abels and Dayal (2017; 2022), adherence to the clause-mate condition is a property of multiple sluicing.

Next, let us look at another set of data from German multiple sluicing.

(37) German

a. Jeder Student hat mit einem Professor geredet,
every.NOM.M student.M has with a.DAT.M professor.M talked
'Every student has talked with a professor,'

b. aber ich weiß nicht [welcher Student mit welchem
but I know not which.NOM.M student.M with which.DAT.M
Professor].
professor.M

‘but I don’t know which student with which professor.’

(adapted from Abels and Dayal 2017: 3)

(38) German

a. Vor jedem Vorfall hat ein Student behauptet,
before each.DAT incident had a.NOM.M student.M claimed
[dass Maria mit einem Professor geredet hatte],
that Maria with a.DAT.M professor.M talked had
‘Before each incident a student claimed that Maria had talked with a professor,’

b.* aber ich weiß nicht [welcher Student mit welchem
but I know not which.NOM.M student.M with which.DAT.M
Professor].
professor.M
‘lit. but I don’t know which student with which professor.’

(cited from Abels and Dayal 2017: 3)

In the antecedent clause (37a), the two correlates *jeder Student* ‘every student’ and *mit einem Professor* ‘with a professor’ belong to the same clause. Accordingly, the multiple sluicing sentence in (37b) is acceptable with the two remnants *welcher Student* ‘which student’ and *mit welchem Professor* ‘with which professor’ being clause-mates. In contrast, in (38a), the first correlate *ein Student* ‘one student’ is in the matrix clause, and the second correlate *mit einem Professor* ‘with a professor’ is in the embedded clause. As a result, the multiple sluicing sentence in (38b) is not acceptable with the two remnants *welcher Student* ‘which student’ and *mit welchem Professor* ‘with which professor’ not being clause-mates.

2.1.2.2.2 The island-insensitivity effect

According to Abels and Dayal (2017; 2022), cases of multiple sluicing violating island conditions are acceptable when correlates of the remnants originate from the same syntactic island. Let us start with the example (39) in English.

(39) a. Ben will be mad [if every student talks to one of the teachers],
b. but he just couldn't remember [which student to which teacher].
(cited from Cortés Rodríguez 2022: 427)

The multiple-sluiced clause in (39b) is anteceded by (39a), where the correlates of the two remnants, *every student* and *one of the teachers*, belong to the same adjunct island. The fact that (39b) is acceptable demonstrates that the island effect is not observed in multiple sluicing constructions.

Let us see another example in (40).

(40) German
a. Ich kenne einen Lehrer, [der jedem Kind ein
I know a.ACC.M teacher.M who every.DAT.N child.N a.ACC.N
Geschenk gegeben hat],
present.N given has
'I know a teacher who gave a present to each child,'

b. aber ich weiß nicht genau [welchem Kind welches
but I know not exactly which.DAT.N child.N which.ACC.N
Geschenk].
present.N
'but I can't remember which present to which child.'
(cited from Abels and Dayal 2017: 4)

The sentence in (40a), which contains a relative clause, antecedes the multiple sluicing sentence in (40b). The two correlates, *jedem Kind* 'every child' and *ein Geschenk* 'a present,' are in the same complex NP island. And the multiple sluicing sentence is acceptable. According to Abels and Dayal (2017; 2022), island insensitivity in multiple sluicing constructions is pervasive across languages.

2.1.2.2.3 The superiority effect

The superiority effect is observed in multiple sluicing constructions (e.g., Merchant 2001; Grebenyova 2009; Abels and Dayal 2017). Let us start our discussion by looking at a definition of the superiority effect (Kuno and Robinson 1972; Chomsky 1973; 1995; Pesetsky 2000; Bošković 2002), as in (41).

(41) α can raise to target K only if there is no legitimate operation Move β targeting K, where β is closer to K (*close* is defined in terms of c-command and equidistance).
(cited from Chomsky 1995: 296)

Now let us see an example of the superiority effect in (42).

(42) a. Who __ did what?

b.* What did who do __?

(cited from Kuno and Robinson 1972: 474)

The multiple *wh*-question (42a) is grammatical with the subject *wh*-phrase *who* preceding the object *wh*-phrase *what*. On the other hand, (42b) is ungrammatical because the object *wh*-phrase *what* is preposed, crossing over the subject *wh*-phrase *who*.

Next, let us consider the superiority effect observed in embedded multiple sluicing (eg., Merchant 2001; Grebenyova 2009; Abels and Dayal 2017).

(43) Bulgarian

	Njakoj	e	vidjal	njakogo,	no	ne	znam	[CP	koj	kogo].
	someone	AUX	seen	someone	but	not	I.know		who	whom

'lit. Someone saw someone, but I don't know who whom.'

(44) * Njakoj e vidjal njakogo, no ne znam [CP kogo koj].

someone AUX seen someone but not I.know whom who

'lit. Someone saw someone, but I don't know whom who.'

(cited from Merchant 2001: 110)

In the antecedent clauses in (43) and (44), the subject correlate *njakoj* 'someone' precedes the object correlate *njakogo* 'someone.' The multiple sluicing sentence in (43), where the subject

wh-remnant *koj* ‘who’ precedes the object *wh*-remnant *kogo* ‘whom,’ is perfectly acceptable. On the other hand, in the multiple-sluiced clause in (44), the object *wh*-remnant *kogo* ‘whom’ precedes the subject *wh*-remnant *koj* ‘who.’ The multiple sluicing sentence in (44) is not acceptable because the order of the remnants does not conform to that of their correlates in the antecedent clause.

The presence of the superiority effect in multiple sluicing constructions in Bulgarian is not surprising because the superiority effect is observed in multiple *wh*-questions in the language (Rudin 1985). Consider (45) and (46):

(45) Bulgarian

	Koj	kogo	e	vidjal?
	who	whom	AUX	seen

‘Who saw whom?’

(46) *

	Kogo	koj	e	vidjal?
	whom	who	AUX	seen

‘lit. Whom did who see?’

(cited from Rudin 1985: 115)

The multiple *wh*-question in (45) is grammatical with the subject *wh*-phrase *koj* ‘who’ preceding the object *wh*-phrase *kogo* ‘whom.’ On the other hand, when the object *wh*-phrase *kogo* ‘whom’ is preposed, crossing over the subject *wh*-phrase *koj* ‘who,’ the sentence becomes ungrammatical, as in (46).

2.1.2.2.4 The case-matching effect

The case-matching effect, discussed in embedded single sluicing, is also observed in embedded multiple sluicing (Sakamoto 2012; Cortés Rodríguez 2023). Let us start our discussion with the following example.

(47) German

a. Am Montagmorgen hat jede Studentin ein
on Monday.morning has every.NOM.F student.F one.ACC.N
Buch gelesen,
book.N read
'On Monday morning, every student read some book,'

b. aber ich weiß nicht, [welche Studentin welches Buch].
but I know not which.NOM.F student.F which.ACC.N book.N
'but I don't know which student which book.'
(cited from Cortés Rodríguez 2023: 18)

In the antecedent clause (47a), the first correlate, *jede Studentin* 'every student,' is in nominative case, and the second correlate, *ein Buch* 'one book,' is in accusative case. Correspondingly, in the multiple-sluiced clause in (47b), the first remnant, *welche Studentin* 'which student,' appears in nominative case, and the second remnant, *welches Buch* 'which book,' appears in accusative case.

Now let us consider another example of multiple sluicing.

(48) Khalkha Mongolian

a. Bat-Ø hen_negen-d hen_negen_zuil-ig ug-sun.
Bat-NOM someone-DAT something-ACC give-PERF
'Bat gave something to someone.'

b. Gevch, bi [$_{CP}$ hen-d yu-g] ni med-eh-gui.
but I who-DAT what-ACC 3SG.PPC know-INF-NEG
'lit. But, I don't know what to whom.'
(cited from Sakamoto 2012: 53-54)

The sentence in (48a) is intended to antecede the multiple sluicing sentence in (48b). Again, the case-matching effect is observed. In (48a), the first correlate *hen_negen-d* 'someone-DAT' appears in dative case, and the second correlate *hen_negen_zuil-ig* 'something-ACC' appears in accusative case. Correspondingly, the first remnant *hen-d* 'who-DAT' appears in dative case, and the second remnant *yu-g* 'what-ACC' appears in accusative case.

2.1.3 Matrix single sluicing

This section focuses on matrix single sluicing, where sluicing appears in matrix interrogative questions (Lasnik 1999; 2001; Merchant 1999; Hasegawa 2008).

2.1.3.1 Basic phenomena

Wh-phrases can appear as remnants in matrix single sluicing, as shown in (49) and (50), where two speakers, A and B, engage in a conversation.

(49) A: Mary will see someone.
B: Who?
(cited from Lasnik 1999: 206)

(50) A: Mary bought something.
B: Really? What?
(cited from Hasegawa 2008: 63)

Speaker A's utterances in (49) and (50) serve to antecede the matrix sluicing sentences in speaker B's utterances. The *wh*-remnants, *who* and *what*, have overt correlates in A's utterances, i.e., *someone* in (49) and *something* (50), respectively.

In addition, sprouting is allowed in matrix single sluicing, as illustrated in (51) and (52).

(51) A: John lost his wallet.
B: Really? Where/When/How?
(cited from Hasegawa 2008: 63)

(52) A: Lois was talking.
B: Really? To whom?
(cited from Merchant 1999: 88)

The *wh*-remnants in (51B) and (52B) do not have overt correlates in the respective A's utterances.

2.1.3.2 Properties of matrix single sluicing

This section details two properties of matrix single sluicing: the case-matching effect and the island amelioration effect, which are also observed in embedded sluicing.

2.1.3.2.1 The case-matching effect

The case-matching effect is observed in matrix single sluicing (Hasegawa 2008; Sakamoto 2015). See (53) below for an example in Japanese.

(53) Japanese

A: Hanako-ga nanika-o kat-ta.
Hanako-NOM something-ACC buy-PST
'Hanako bought something.'

B: Hontoo? Nani-o?
really what-ACC
'Really? What?'
(cited from Hasegawa 2008: 69)

(53A) antecedes the matrix sluicing sentence in (53B). The *wh*-remnant in B's utterance, *nani-o* 'what-ACC,' is accompanied by the accusative case marker, just as its correlate in A's utterance.

Next, let us look at another set of data.

(54) Khalkha Mongolian

A:	Bat-Ø	hen_negen-d	ene	nom-ig	ug-sun.
	Bat-NOM	someone-DAT	this	book-ACC	give-PERF
	‘Bat gave this book to someone.’				
B:	Hen-d	n’	be?		
	who-DAT	PPC	Q		
	‘To whom?’				
	(cited from Sakamoto 2015: 342)				

(54A) is intended to antecede (54B). The matrix sluicing sentence in (54B) contains a *wh*-remnant, a personal possessive clitic (PPC), and a question marker.[2] The *wh*-remnant, *hen-d* ‘who-DAT,’ is assigned dative case, matching that of its correlate in (54A).

2.1.3.2.2 The island-insensitivity effect

Cases of matrix single sluicing violating island conditions are acceptable, which is known as the island-insensitivity effect (Hasegawa 2008). Let us start our discussion with the example below.

[2] The PPC and the question marker in (54B) are explained in detail in chapter 3 of this dissertation.

(55) Japanese CNPC

A: Hanako-wa [Taro-ga nanika-o okut-ta zyosei]-o sagasitei-ru.
Hanako-TOP Taro-NOM something-ACC give-PST woman-ACC look.for-PRS
'Hanako seems to be looking for a woman who Taro gave something to.'

B: Hontoo? Nani-o?
really what-ACC
'Really? What?'
(cited from Hasegawa 2008: 69)

The matrix sluicing sentence in (55B) is anteceded by (55A). The correlate *nanika-o* 'something-ACC' of the remnant is inside the Complex NP Constraint, which prohibits moving an element out of it. Nevertheless, the matrix sluicing sentence is perfectly acceptable.

Next, let us see an example involving the Adjunct Condition.

(56) Japanese AC

A: [Taro-ga nanika-o tabe-ta kara] Hanako-ga
Taro-NOM something-ACC eat-PST because Hanako-NOM
okot-ta rasii.
angry-PST seem
'Hanako seems to have gotten angry because Taro ate something.'

B: Hontoo? Nani-o?
really what-ACC

‘Really? What?’

(cited from Hasegawa 2008: 69)

In (56), the correlate *nanika-o* ‘something-ACC’ is in an adjunct island. The fact that the matrix sluicing sentence is acceptable demonstrates that matrix sluicing in Japanese is insensitive to island effects.

Lastly, let us see a case involving the Left Branch Condition.

(57) Japanese LBC

A: Hanako-ga kuruma-o kat-ta rasii.

Hanako-NOM car-ACC buy-PST seem

‘Hanako seems to have bought a car.’

B: Hontoo? Donna?

really what.kind

‘Really? What kind?’

(cited from Hasegawa 2008: 69)

In (57), the *wh*-remnant *donna* ‘what kind’ modifies the NP *kuruma* ‘a car.’ Extraction of the modifier from the NP violates the LBC. Nevertheless, the matrix single sluicing sentence is perfectly acceptable.

2.1.4 Matrix multiple sluicing

This section focuses on matrix multiple sluicing and its properties (Stjepanović 2003; Bai 2023b).

2.1.4.1 Basic phenomena

Matrix multiple sluicing allows *wh*-phrases as remnants. Let us start our discussion with the example below.

(58) Serbo-Croatian

Speaker A: Neko voli nekog.
somebody.NOM loves somebody.ACC
'Somebody loves somebody.'

Speaker B: Ko koga voli?
who.NOM who.ACC loves
'Who loves whom?'

Speaker B': Ko koga?
who.NOM who.ACC
'lit. Who whom?'
(cited from Stjepanović 2003: 256-257)

(58A) antecedes the complete multiple *wh*-question in (58B) and the matrix multiple sluicing sentence in (58B'). (58B') contains two *wh*-remnants, *ko* 'who' and *koga* 'whom,' which have overt correlates in (58A), i.e., *neko* 'somebody' and *nekog* 'somebody,' respectively. The

multiple sluicing sentence is perfectly acceptable, which is not surprising since Serbo-Croatian is a multiple *wh*-fronting language, as illustrated in (59).

(59) Serbo-Croatian

a* Ko kupuje šta gdje?
who buys what where
'Who buys what where?'

b.* Ko šta kupuje gdje?
who what buys where

c. Ko šta gdje kupuje?
who what where buys
(cited from Stjepanović 2003: 255)

The multiple *wh*-questions in (59) contain three *wh*-phrases, all of which must be fronted to appear in some position preceding the verb. As a result, only (59c) is grammatical.

Moreover, sprouting is allowed in matrix multiple sluicing (Stjepanović 2003). See (60) for an illustration.

(60) Serbo-Croatian

A: Marko piše.
Marko writes
'Marko is writing.'

B: Šta kome?
what.ACC whom.DAT

'lit. What to whom?'

(cited from Stjepanović 2003: 271)

(60A) serves to antecede the matrix multiple sluicing sentence in (60B), in which the two *wh*-remnants, *šta* 'what' and *kome* 'whom,' do not have overt correlates. This sprouting example is acceptable since the verb *piše* 'writes' allows the integration of an optional direct and indirect object.

2.1.4.2 Properties of matrix multiple sluicing

This section focuses on two properties of matrix multiple sluicing that have been discussed in the previous literature (Stjepanović 2003; Grebenyova 2009): the superiority effect and the case-matching effect.

2.1.4.2.1 The superiority effect

The superiority effect is observed in matrix multiple sluicing (Stjepanović 2003; Grebenyova 2009). Let us consider matrix multiple sluicing in Serbo-Croatian, a multiple *wh*-fronting language. Firstly, the superiority effect is not observed in matrix multiple *wh*-questions without an overt C in the language, as illustrated in (61) (Bošković 2002).

(61) Serbo-Croatian

a. Ko koga voli?

who.NOM who.ACC loves

'Who loves whom?'

b. Koga ko voli?

who.ACC who.NOM loves

(cited from Stjepanović 2003: 256)

(61a) is grammatical with the subject *wh*-phrase *ko* 'who.NOM' preceding the object *wh*-phrase *koga* 'who.ACC.' Note that (61b) is also grammatical, where the object *wh*-phrase *koga* 'who.ACC' is preposed, crossing over the subject *wh*-phrase *ko* 'who.NOM.'

Importantly, the superiority effect is observed in matrix multiple sluicing. Consider (62):

(62) Serbo-Croatian

A: Neko voli nekog.

somebody.NOM loves somebody.ACC

'Somebody loves somebody.'

B: Ko koga?

who.NOM who.ACC

'lit. Who whom?'

B':* Koga ko?

who.ACC who.NOM

'lit. Whom who?'

(cited from Stjepanović 2003: 257)

(62A) antecedes (62B) and (62B'). In the antecedent sentence, the subject correlate *neko* 'somebody.NOM' precedes the object correlate *nekog* 'somebody.ACC.' Correspondingly, the matrix multiple sluicing sentence is perfectly acceptable when the subject *wh*-remnant *ko* 'who.NOM' precedes the object *wh*-remnant *koga* 'who.ACC.' By contrast, the matrix multiple sluicing sentence is not acceptable when the object *wh*-remnant *koga* 'who.ACC' is preposed, crossing over the subject *wh*-remnant *ko* 'who.NOM,' though its corresponding non-elliptic counterpart shown in (61b) is grammatical.

The same contrast is observed in matrix multiple sluicing with adverbial remnants. Let us first take a look at the relevant multiple *wh*-questions in (63).

(63) Serbo-Croatian

A: Neko je negdje sakrio blago.
somebody.NOM is somewhere hidden treasure
'Somebody hid the treasure somewhere.'

B: Ko je gdje sakrio blago?
who.NOM is where hidden treasure
'Who hid the treasure where?'

B': Gdje je ko sakrio blago?
where is who.NOM hidden treasure
(cited from Stjepanović 2003: 272)

(63A) antecedes the multiple *wh*-questions in (63B) and (63B'). (63B) is grammatical with the subject *wh*-phrase *ko* 'who.NOM' preceding the adverbial *wh*-phrase *gdje* 'where.' (63B') is also

grammatical when the adverbial *wh*-phrase *gdje* ‘where’ is preposed, crossing over the subject *wh*-phrase *ko* ‘who.NOM.’

Now let us see what happens when matrix multiple sluicing is applied to B’s utterances in (63), as shown in (64).

(64) Serbo-Croatian

A:	Neko	je	negdje	sakrio	blago.
	somebody.NOM	is	somewhere	hidden	treasure
	‘Somebody hid the treasure somewhere.’				
B:	Ko	gdje?			
	who.NOM	where			
	‘lit. Who where?’				
B’:?*	Gdje	ko?			
	where	who.NOM			
	‘lit. Where who?’				
	(cited from Stjepanović 2003: 268)				

(64A) antecedes the matrix multiple sluicing sentences in (64B) and (64B’). The matrix multiple sluicing sentence is acceptable when the precedence relation of the remnant *wh*-phrases conforms to that of their correlates, as in (64B). In contrast, the matrix multiple sluicing sentence in (64B’) is not acceptable when the adverbial *wh*-remnant *gdje* ‘where’ precedes the subject *wh*-remnant *ko* ‘who.NOM,’ though its non-elliptic counterpart in (63B’) is perfectly acceptable. Violation of the superiority relation results in the unacceptability of matrix multiple sluicing sentences.

2.1.4.2.2 The case-matching effect

The case-matching effect is observed in matrix multiple sluicing across languages (Stjepanović 2003; Bai 2023b). See the example below.

(65) Serbo-Croatian

A: Neko je nekoga sakrio ovdje.
somebody.NOM is somebody.ACC hid here
'Somebody hid somebody here.'

B: Ko koga?
who.NOM who.ACC
'lit. Who whom?'
(cited from Stjepanović 2003: 269)

In the antecedent sentence in (65A), the two correlates *neko* 'somebody.NOM' and *nekoga* 'somebody.ACC' are assigned nominative and accusative case, respectively. Correspondingly, in the matrix multiple sluicing sentence in (65B), the cases of the remnants, *ko* 'who.NOM' and *koga* 'what.ACC,' match those of their respective correlates.

2.2 Theoretical analyses

As discussed in section 2.1, sluicing, the elliptical construction, has been extensively studied in

many *wh*-movement languages (Ross 1969; Merchant 2001; Merchant and Simpson 2012). Two major alternative analyses have been proposed to explain the properties sluicing exhibits: the PF deletion analysis and the LF copying analysis. These two approaches will be reviewed in the first part of this section. Additionally, constructions with surface strings resembling sluicing have been observed in some *wh*-in-situ languages (Merchant 1998; Wei 2004; Gribanova 2013). Since such constructions have properties that are different from those of sluicing, they are called sluicing-like constructions (van Craenenbroeck and Lipták 2006). Three lines of analysis have been advanced to account for sluicing-like constructions: the pseudo-sluicing analysis, the reduced cleft analysis, and the reduced pseudo-cleft analysis, all of which will be presented in the second part of this section.

2.2.1 Sluicing

This section reviews two major lines of analyses put forth to account for sluicing constructions: the PF deletion approach and the LF copying approach.

2.2.1.1 The PF deletion approach

The PF deletion approach to sluicing has been extensively discussed in the previous literature (e.g., Ross 1969; Sag 1976; Kim 1997; Takahashi 1994; Lasnik 1999; 2001; Merchant 2001; Wang 2002; van Craenenbroeck and Lipták 2006). A basic illustration of this approach is presented in (66).

(66) a. He is writing something,

b. but you can't imagine [what].

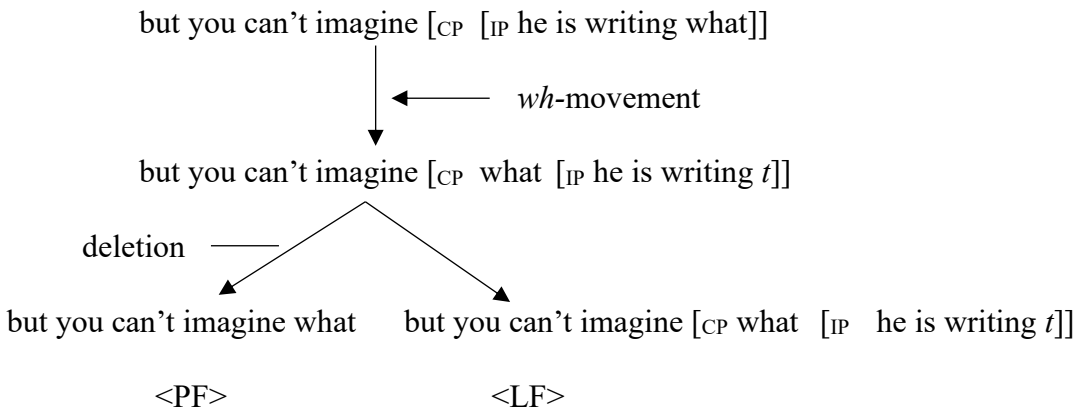
c. but you can't imagine [$_{CP}$ what$_i$ [$_{IP}$ he is writing t$_i$]].

(cited from Ross 1969: 252)

d. but you can't imagine [$_{CP}$ what$_i$ [$_{IP}$ he is writing t$_i$]]

The sentence in (66a) antecedes the sluiced clause in (66b) and the full-fledged *wh*-question in (66c). In (66c), the *wh*-phrase *what* is moved to the specifier position of CP. When IP is elided in (66c), indicated with grey shading in (66d), the sluicing sentence in (66b) is derived (e.g., Ross 1969; Merchant 2001). IP-ellipsis, or sluicing, is assumed to take place in the Phonetic Form (PF) component, as shown in (67).

(67) PF deletion



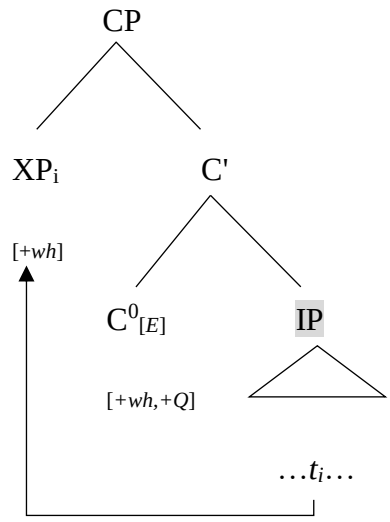
(adapted from Takahashi 1994: 279)

As can be seen from (67), the PF deletion approach to sluicing posits that there is a full-fledged IP, which is sent off to Logical Form (LF) for interpretation and deleted in PF.

A pertinent question to the deletion approach is what licenses the ellipsis of IP. According to

the previous literature (Lobeck 1991; 1995; Takahashi 1994; Merchant 2001; 2005; 2008; van Craenenbroeck and Lipták 2006; 2013; Aelbrecht 2009), IP deletion is triggered by [+wh] and [+Q] features on a head (possibly the C head). According to Merchant (2001), an E-feature merges with a head and instructs PF not to pronounce the complement of the head. See (68) for an illustration.

(68)



(adapted from Merchant 2008:133)

The E-feature merges with C head, containing [+wh] and [+Q] features. A *wh*-phrase is moved to SPEC CP to check off the [+wh] feature. E then instructs the PF-deletion of the complement of the C head. That is, the IP complement, indicated with grey shading in (68), is deleted.

The E-feature encodes syntactic, phonological, and semantic requirements (Merchant 2001), as presented in (69).

(69) E in sluicing

a. The syntax of E: E[*u*wh∗, *u*Q∗]

b. The phonology of E: $\varphi_{IP} \rightarrow \emptyset / E \_$

c. The semantics of E: [[E]] = λp: e-GIVEN(p) [p]

(cited from Merchant 2005: 670-672)

First, E has syntactic requirements, as shown in (69a). E is merged with C, which bears [+wh, +Q] features, to do feature-checking in a local (head-to-head) relation. Next, the phonology of E is represented in (69b). φIP is the phonological representation of material dominated by an IP node. The realization of this material is null when it is the complement of E. Lastly, E encodes semantic requirements, ensuring that a deleted constituent can be recovered. E is a partial identity function over propositions, requiring that the complement of E has to be e-GIVEN, as shown in (69c). An expression is e-GIVEN if and only if there is an antecedent A which entails and is entailed by the expression. In summary, the E-feature functions to connect the licensing condition of sluicing (i.e., conditions that allow the ellipsis of IP) and the identification condition of sluicing (i.e., recovery of the elided information) with the phonological effect of non-pronunciation.

According to the PF deletion approach, there is syntactic structure in ellipsis sites. Accordingly, this approach predicts that sluiced clauses should exhibit the same properties as their full-fledged counterparts. This prediction is supported by two phenomena observed in sluicing: the case-matching effect and preposition-stranding parallelism (Ross 1969; Merchant 2001). Let us start our discussion with the case-matching effect, a phenomenon in which the case of a remnant interrogative phrase matches that of its correlate in the preceding context. Conder the following example:

(70) German

a. Er will jemandem schmeicheln,
he wants someone.DAT flatter
'He wants to flatter someone,'

b. aber sie wissen nicht [wem/*wen].
but they know not who.DAT/who.ACC
'but they don't know who.'
(cited from Ross 1969: 253)

c. aber sie wissen nicht [wem/*wen er schmeicheln will].
but they know not who.DAT/who.ACC he flatter wants
'but they don't know who he wants to flatter.'
(cited from Merchant 2001: 90)

d. aber sie wissen nicht [$_{CP}$ wem$_i$ [$_{IP}$ er t_i schmeicheln will]]
but they know not who.DAT he flatter wants

The sentence in (70a) is intended to antecede the sluiced clause in (70b) and the full-fledged embedded question in (70c). The remnant *wem* 'who' in the sluiced clause must appear in dative case, matching that of its correlate *jemandem* 'someone' in (70a). The observed case-matching effect can be straightforwardly captured by the PF deletion approach. Specifically, the sluicing sentence in (70b) is derived when IP in the full-fledged question in (70c) is elided, as indicated in (70d). The *wh*-phrase *wem* survives the IP-ellipsis because it is moved to the specifier position of CP. Movement of a *wh*-phrase is independently allowed in German since it is a single *wh*-fronting language like English (Haider 2010), as demonstrated in (71).

(71) German

a. Matrix *wh*-question

[$_{CP}$ Was$_i$ [$_{IP}$ will er uns t_i erklären]]?

what wants he us.DAT explain

'What does he want to explain to us?'

b. Embedded *wh*-question

Man fragt sich, [$_{CP}$ was$_i$ [$_{IP}$ er uns t_i erklären will]].

one asks oneself what he us.DAT explain wants

'One wonders what he wants to explain to us.'

(cited from Haider 2010: 86)

(71a) is a matrix *wh*-question, in which the *wh*-phrase *was* 'what' is moved from the object position to the clausal initial position. *Wh*-movement also occurs in embedded *wh*-questions like (71b), in which the *wh*-phrase *was* 'what' is moved from the object position to the initial position of the embedded clause. That German employs the *wh*-movement strategy is a crucial ingredient of the PF deletion approach.

The case-matching effect is also observed in multiple sluicing (Stjepanović 2003). See the example below.

(72) Serbo-Croatian

A: Neko voli nekog.

somebody.NOM loves somebody.ACC

'Somebody loves somebody.'

B: Ko koga?

who.NOM who.ACC

‘lit. Who whom?’

B’: Ko koga voli?

who.NOM who.ACC loves

‘Who loves whom?’

(cited from Stjepanović 2003: 256-257)

The sentence in (72A) serves as the antecedent for the multiple sluicing sentence in (72B) and the multiple *wh*-question in (72B’). In the antecedent sentence, the two correlates, *neko* ‘somebody.NOM’ and *nekoga* ‘somebody.ACC,’ are assigned nominative and accusative case, respectively. Correspondingly, in the matrix multiple sluicing sentence in (72B), the cases of the remnants, *ko* ‘who.NOM’ and *koga* ‘what.ACC,’ match those of their respective correlates. The observed case-matching effect in matrix multiple sluicing can be captured by the PF deletion analysis (Stjepanović 2003), as demonstrated in (73).

(73) $[_{CP}$ ko_i $koga_j$ $C[_{IP}$ t_i voli $t_j]]$

who.NOM who.ACC loves

‘Who loves whom’

Serbo-Croatian is a multiple *wh*-fronting language, which requires all of the *wh*-phrases in a *wh*-question to precede the verb (Stjepanović 2003). In (73), the higher *wh*-phrase *ko* ‘who’ is moved to SPEC CP to check the [+wh] feature on the C head. Subsequently, the lower *wh*-phrase *koga* ‘whom’ is moved to SPEC CP and “tucked-in” below the higher *wh*-phrase (Richards 1997). Lastly, IP is deleted, and as a result, the multiple sluicing sentence in (72B) is derived.

The second phenomenon supporting the PF deletion analysis is the preposition-stranding parallelism between sluicing constructions and full-fledged *wh*-questions (Ross 1969; Merchant 2001). Let us first look at the preposition-stranding generalization made by Merchant (2001).

(74) Form-identity generalization: Preposition-stranding

A language *L* will allow preposition stranding under sluicing iff *L* allows preposition stranding under regular *wh*-movement.

(cited from Merchant 2001: 107)

According to the form-identity generalization, sluicing sentences have the same properties as full-fledged *wh*-questions with respect to preposition stranding. See example (75) below.

(75) a. Peter was talking with someone,

b. but I don't know with whom.

c. but I don't know who.

d. but I don't know [$_{CP}$ with whom$_i$ [$_{IP}$ Pater was talking t_i]].

e. but I don't know [$_{CP}$ who$_i$ [$_{IP}$ Peter was talking with t_i]].

(cited from Merchant 2001: 92)

f. but I don't know [$_{CP}$ with whom$_i$ [$_{IP}$ Pater was talking t_i]]

g. but I don't know [$_{CP}$ who$_i$ [$_{IP}$ Peter was talking with t_i]]

The sentence in (75a) serves as the antecedent for the sluicing sentences in (75b) and (75c), both of which are acceptable. The correlate is a PP, *with someone*. The remnant in (75b) is also a PP, *with whom*. In addition, the preposition *with* can be stranded in the sluiced clause, as

demonstrated in (75c). This phenomenon is also observed in normal English *wh*-questions. That is, a preposition can be either pied-piped with a *wh*-phrase to the initial position of the *wh*-question or stranded at the end of the *wh*-question, as shown in (75d) and (75e), respectively. Subsequently, when IP is deleted in (75d) and (75e), the sluicing sentences in (75b) and (75c), respectively, can be derived, as indicated in (75f) and (75g).

Next, let us consider an example from a language that does not permit preposition-stranding in a typical *wh*-question.

(76) Russian

a.* Kem ona govorila s?
who she spoke with
'Who did she speak with?'

b. S kem ona govorila?
with who she spoke
'With whom did she speak?'

c. Anja govorila s kem-to, no ne znaju *(s) kem.
Anja spoke with someone but not I.know with who
'Anja spoke with someone, but I don't know with whom.'
(adapted from Merchant 2001: 96)

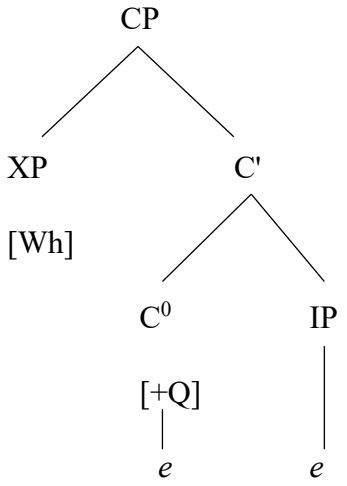
The full-fledged *wh*-question in (76a) is ungrammatical with the preposition being stranded at the end of the clause. The preposition *s* 'with' must be pied-piped with the *wh*-phrase to the initial position of the *wh*-question, as shown in (76b). Likewise, the preposition cannot be stranded in the sluiced clause in (76c). Otherwise, the sluicing sentence is not acceptable. The

preposition-stranding parallelism indicates that sluicing constructions contain syntactic structures that parallel those of full-fledged *wh*-questions (Merchant 2001; 2006).

2.2.1.2 The LF copying approach

As an alternative to the PF deletion approach, which assumes that there is syntactic structure in ellipsis sites, the LF copying approach has also been put forth to account for sluicing constructions. The LF copying approach posits a base-generated *wh*-phrase in SPEC CP, accompanied by an empty IP (e.g., Levin 1982; Chung, Ladusaw, and McCloskey 1995; Merchant 2000; Fortin 2011; Manetta 2013; Sakamoto 2015; Kanakri 2018). In other words, the LF copying approach assumes that there is no syntactic structure in an ellipsis site. See (77) for an illustration.

(77)



(cited from Chung, Ladusaw, and McCloskey 1995: 242)

Next, we will see how the sluicing example in (78) is explained by the LF copying account.

(78) a. [$_{IP}$ Mary saw someone].

b. I wonder who.

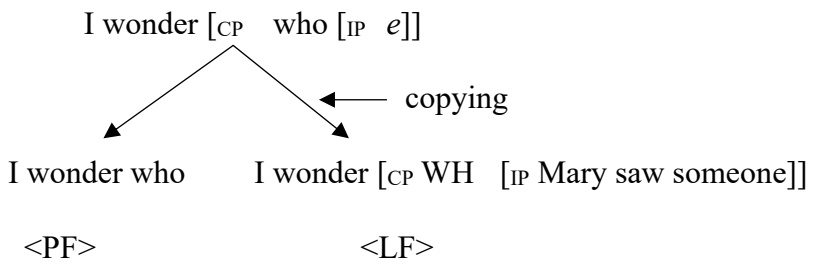
c. I wonder [$_{CP}$ who [$_{IP}$ *e*]]

d. I wonder [$_{CP}$ who [$_{IP}$ Mary saw someone]]

e. I wonder [$_{CP}$ who^{x} [$_{IP}$ Mary saw someone^{x}]]

The sentence in (78a) antecedes the sluicing sentence in (78b). According to Chung, Ladusaw, and McCloskey (1995), the remnant *wh*-phrase *who* is based-generated in SPEC CP. The IP has no internal structure and thus is phonologically null, as shown in (78c). The identification requirements of sluicing are satisfied by copying the LF of the IP in the antecedent clause into the empty IP in the sluiced clause, as in (78d). This process is called IP-recycling (Chung, Ladusaw, and McCloskey 1995). Furthermore, the indefinite phrase, *someone*, provides a variable, which is coindexed with the *wh*-remnant *who*, as in (78e). This process is called Merger, which ensures that the remnant *wh*-phrase can be interpreted. The LF copying analysis of the sluicing example in (78) is summarized below in (79).

(79) LF copying



(adapted from Takahashi 1994: 279)

As can be seen from (79), there is no syntactic structure in the ellipsis site in PF. The identification condition of the sluicing sentence is satisfied via the processes of IP-recycling and Merger.

The LF copying approach can explain certain phenomena wherein sluicing constructions behave differently from their full-fledged counterparts. For example, while sluicing constructions are insensitive to island effects, full-fledged questions involving *wh*-phrases moved out of an island are subject to island conditions. This island-insensitive property of sluicing can be accounted for by the LF copying approach. An example is shown below.

(80) a. [$_{IP}$ They want to hire someone who speaks a Balkan language],

b.* but I don't remember [which (Balkan language) they want to hire someone [who speaks __]].

c. but I don't remember [which].

d. but I don't remember [$_{CP}$ which [$_{IP}$ *e*]]

e. but I don't remember [$_{CP}$ which^{x} [$_{IP}$ they want to hire someone who speaks [a Balkan language]^{x}]]

(cited from Merchant 2000: 44)

The sentence in (80a) is the antecedent of the full-fledged sentence in (80b) and the sluicing sentence in (80c). (80b) is degraded because the *wh*-phrase *which* is moved out of a relative clause, violating the Complex NP Constraint. The sluiced clause in (80c), however, is acceptable. The acceptability of (80c) can be explained by the LF copying approach, according to which, the *wh*-remnant is base-generated in SPEC CP and does not undergo *wh*-movement, as in (80d). In other words, there will be no island violation when there is no movement of the

wh-phrase out of the island. Additionally, after IP-recycling, the sluicing sentence can be interpreted via variable binding, as shown in (80e).

In summary, section 2.2.1 has presented two approaches to sluicing. The PF deletion analysis posits that there is syntactic structure in an ellipsis site, which renders the interpretation of a sluicing sentence possible and is later deleted in PF. This analysis can account for phenomena in which sluicing constructions exhibit the same properties as their full-fledged counterparts. In contrast, the LF copying analysis posits that there is no syntactic structure in an ellipsis site and thus no phonological content in IP. The interpretation of sluicing sentences is achieved via IP-recycling and Merger. This approach explains phenomena in which sluicing constructions show different properties from their full-fledged counterparts. The choice between PF deletion and LF copying will be immaterial in what follows in this dissertation and hence I will just indicate elided elements with grey shading to be neutral between the two alternatives.

2.2.2 Sluicing-like constructions

As discussed in the previous literature (e.g., Wei 2004; Adams 2004; Hiraiwa and Ishihara 2012; Gribanova 2013), some *wh*-in-situ languages, such as MC, Japanese, Uzbek, etc., have constructions with surface strings which resemble sluicing. The relevant constructions are referred to as sluicing-like constructions because they exhibit properties different from genuine sluicing constructions (van Craenenbroeck and Lipták 2006). Sluicing-like constructions have been argued to be derived from three types of constructions: pseudo-sluiced clauses, cleft constructions, or pseudo-cleft constructions, none of which assume *wh*-movement in *wh*-in-situ languages. This section will present these three lines of analyses.

2.2.2.1 The pseudo-sluicing analysis

This section details the pseudo-sluicing analysis, which has been put forth to explain truncated interrogative questions in some *wh*-in-situ languages, such as MC (Wei 2004; Adams 2004; Adams and Tomioka 2012), Uzbek (Gribanova 2013; Gribanova and Manetta 2016), etc. According to Merchant (1998; 2001), a pseudo-sluiced clause contains a pronominal subject, a copula, and a *wh*-phrase, as shown in (81).

(81) a. Someone just left,

b. guess [who].

c. guess [who it was].

d. guess [who it was]

The sentence in (81a) antecedes the sluiced clause in (81b) and the pseudo-sluiced clause in (81c). When the pronominal subject and the copula in (81c), indicated with grey shading in (81d), are deleted, the remaining string is identical to the sluicing sentence in (81b).

The pseudo-sluicing analysis can account for properties of reduced interrogative clauses observed in some languages. For example, reduced questions in some languages allow the appearance of a copula, as shown below.

(82) MC

a. Zhangsan kan-dao mouren,

Zhangsan see-ASP someone

'Zhangsan saw somebody,'

b. danshi wo bu zhidao [(shi) shenme ren].
but I not know COP what person
'but I don't know what person.'
(cited from Li and Wei 2014: 296)

The sentence in (82a) antecedes the reduced question in (82b), where the *wh*-remnant *shenme ren* 'what person' can optionally be preceded by the copula *shi*. In line with the pseudo-sluicing analysis, the reduced question in (82b) can be analyzed as (83a), containing a null pronoun, which is independently allowed in MC, a *pro*-drop language (Huang 1984).

(83) a. danshi wo bu zhidao [*pro* (shi) shenme ren]
but I not know he COP what person
'but I don't know what person (he) was'
b. danshi wo bu zhidao [*ta* (shi) shenme ren].
but I not know he COP what person
'but I don't know what person he was.'

The null pronoun in (83a) can be replaced by an overt pronoun *ta* 'he,' as illustrated in (83b). According to the previous literature (Wei 2004; Adams 2004; Li and Wei 2014), reduced questions in MC consist of an empty *pro,* an optional copula, and a *wh*-remnant.

The pseudo-sluicing analysis predicts that reduced questions in relevant languages do not exhibit island effects since a pseudo-sluiced clause, being a copular clause, does not contain an island (Adams 2004; Palaz 2018; 2019). Consider the example below:

(84) MC

a. Lisi jie-le [mouren zuotian zai dian li mai de]
Lisi borrow-ASP someone yesterday at store inside buy DE
mou-yang dongxi,
some-CL thing
'Lisi borrowed something that someone bought in the store yesterday,'

b. danshi ta bu gaosu women [shi shei].
but he not tell us COP who
'but he wouldn't tell us who.'
(cited from Adams 2004: 9)

c. danshi ta bu gaosu women [*pro* shi shei]
but he not tell us he COP who
'but he wouldn't tell us who (he) was'

d. danshi ta bu gaosu women [*ta* shi shei].
but he not tell us he COP who
'but he wouldn't tell us who he was.'

The sentence in (84a), which contains a relative clause, antecedes the reduced question in (84b). The correlate of the *wh*-remnant is *mouren* 'someone,' which is inside the relative clause. The absence of the island effect in the reduced question in (84b) can be captured by the pseudo-sluicing analysis. Specifically, the reduced question is analyzed as a pseudo-sluiced clause containing an empty pronoun, as illustrated in (84c). (84c) can be expressed alternatively with an overt pronoun in place of the empty pronoun, as in (84d). Since the pseudo-sluiced clause does not contain an island, it follows that the island effect is not observed in the reduced

question.

In addition, the pseudo-sluicing analysis can explain the observation that the case-matching effect is not observed in reduced questions in languages with rich case morphology, such as Turkish (Palaz 2018; 2019) and Uzbek (Gribanova 2013; Gribanova and Manetta 2016). See the example below.

(85) Turkish

a. Ece-Ø birin-den çekin-iyor-du,
Ece-NOM someone-ABL abstain-PRS-PST.3SG
'Ece was abstaining from someone,'

b. ama [kim (i-di)] sor-ma-dı-m.
but who COP-PST ask-NEG-PST-1SG
'but I didn't ask who.'
(cited from Palaz 2019: 70)

The sentence in (85a) antecedes the reduced question in (85b). The correlate in the antecedent clause, *birin* 'someone,' is assigned ablative case. In contrast, the remnant in the reduced question (85b), *kim* 'who,' is not accompanied by a case marker. In other words, the case-matching effect is not observed in the reduced question. In addition, the reduced question allows the optional appearance of the copula *i-di* 'COP-PST.' These two observations can be captured by the pseudo-sluicing analysis, according to which, the reduced question in (85b) can be analyzed as (86a) containing an empty pronoun.

(86) a. ama [*pro* kim (i-di)] sor-ma-dı-m
but who COP-PST ask-NEG-PST-1SG
'but I didn't ask who (that) was'

b. ama [*o* kim (i-di)] sor-ma-dı-m.
but that who COP-PST ask-NEG-PST-1SG
'but I didn't ask who that was.'
(cited from Palaz 2019: 70)

The empty *pro* in (86a) can be spelled out, as shown in (86b). In the pseudo-sluiced clause in (86b), the *wh*-phrase is the complement of the copula and thus is not case-marked.

Lastly, as discussed in the previous literature (Gribanova 2013; Gribanova and Manetta 2016; Bai 2023a; Bai and Takahashi 2023a), truncated questions in some languages can be uttered felicitously without linguistic antecedents, a phenomenon that can be explained by the pseudo-sluicing analysis. Before presenting the relevant data, let us first note the dichotomy observed by Hankamer and Sag (1976) between ellipsis and pronouns (or more precisely, what they call surface and deep anaphora). They point out that while sluicing, which is assumed to involve ellipsis, requires verbally expressed antecedents, pronominal expressions can be used felicitously without such antecedents.

(87) Hankamer: Someone's just been shot.
Sag: Yeah, I wonder who.

(88) Context: Hankamer produces a gun, points it offstage and fires, whereupon a scream is heard.
Sag: # Jesus, I wonder who.

(89) Hankamer [observing Sag successfully ripping a phone book in half]:

I don't believe it.

(90) Sag [same circumstance]:

It's not easy.

While (87) shows that sluicing is possible with a linguistic antecedent, (88) indicates that the mere presence of a context is not sufficient. In (89) and (90), on the other hand, the pronouns are used felicitously without verbally realized contexts.

Bearing these in mind, let us consider the following data:

(91) Uzbek

Context: Showing someone a mysterious object.

Nima-lig-i-ni bil-ma-y-man.

what-COMP-3SG.POSS-ACC know-NEG-PRS-1SG

'I don't know what (that is).'

(cited from Gribanova and Manetta 2016: 638)

The sentence in (91) contains a reduced embedded question in Uzbek, which can be felicitously uttered without a verbally expressed linguistic antecedent. This fact can be explained naturally if reduced questions in Uzbek involve pronominal subjects, in line with the pseudo-sluicing analysis.

This section has detailed the pseudo-sluicing analysis accounting for truncated interrogative clauses in some *wh*-in-situ languages. This analysis can explain some properties of reduced questions, such as the appearance of a copula, the lack of island effects, and the lack of case

connectivity.

2.2.2.2 The reduced cleft analysis

Truncated interrogative questions in some languages can be derived from cleft constructions (e.g., Hiraiwa and Ishihara 2012; Gribanova 2013). Let us start our discussion with the cleft construction in English (Akmajian 1970; Ross 1972; Chomsky 1977; Higgins 1979), as shown in (92).

(92) It was Agnew [who Nixon chose].
(cited from Akmajian 1970: 150)

A cleft sentence in English is comprised of a main clause and a subordinate clause. The main clause is a copular clause that contains a focused constituent, such as *Agnew* in (92). The subordinate clause, indicated with brackets, conveys information presupposed by the speaker (Bolinger 1972; Pinkham and Hankamer 1975).

According to the previous literature, truncated interrogative questions in Japanese can be derived from the cleft construction in the language (Shimoyama 1995; Kuwabara 1996; Nishiyama, Whitman, and Yi 1996; Kizu 2005). This section presents a reduced cleft analysis of truncated embedded questions in Japanese. Let us start our discussion with the cleft sentence in (93).

(93) [Taro-ga Hanako-o syootai-sita no]-wa sono paatii-ni da.
Taro-NOM Hanako-ACC invite-PST COMP-TOP the party-DAT COP
'It was to the party that Taro invited Hanako.'
(cited from Hasegawa 2011: 14)

A cleft sentence in Japanese contains a presuppositional clause, which is marked by the topic marker *wa*. The subject of the presuppositional clause is marked nominative, such as *Taro-ga* 'Taro-NOM' in (93). The presuppositional clause is followed by a focused constituent, which is in turn followed by the copula *da*. The focused constituent is accompanied by a case marker. See (94) below for a schematic representation of the cleft construction in Japanese.

(94) $[_{CP}$ …e_i…no]-TOP XP_i-case/postposition copula
(cited from Hiraiwa and Ishihara 2012: 145)

Next, some properties of the cleft construction in Japanese that are important to the reduced cleft analysis of truncated questions are considered. The first property is that focused constituents, or pivots, are followed by case markers, as shown in (93), (95), and (96).

(95) [Mari-ni ringo-o ageta no]-wa otoko-ga huta-ri da.
Mari-DAT apple-ACC gave COMP-TOP man-NOM 2-CL COP
'It was two men that gave Mari an apple.'
(cited from Hiraiwa and Ishihara 2012: 144)

(96) [Taro-ga tabeta no]-wa kono-ringo-o 3-tu da.
Taro-NOM ate COMP-TOP this-apple-ACC 3-CL COP

'It was three of these apples that Taro ate.'

(cited from Hiraiwa and Ishihara 2002: 36)

The pivots in (93), (95), and (96) are marked dative, nominative, and accusative, respectively. The cleft sentences are perfectly acceptable. Note that the pivots marked nominative and accusative in (95) and (96) are not adjacent to the copula. Rather, a numeral-classifier cluster is floated to appear in between the pivot and the copula (Koizumi 1995; Hiraiwa and Ishihara 2002; 2012; Watanabe 2006).[3]

The second property of cleft sentences in Japanese is that they are sensitive to island effects (Hoji 1987; Kuwabara 1997; Merchant 1998; Hasegawa 2008; Hiraiwa and Ishihara 2002; 2012). Consider the example below:

[3] The nominative case and accusative case are structural cases in Japanese (e.g., Inoue 1976; Sadakane and Koizumi 1995; Shimoyama 1995). When a structural case is adjacent to a copula in the cleft construction, the relevant sentences are perceived as degraded by some native speakers (Nishiyama, Whitman, and Yi 1996; Merchant 1998; Hasegawa 2011; Hiraiwa and Ishihara 2012), as shown in (i) and (ii), respectively.

(i) [Mary-o aisiteiru no]-wa John-*ga da.
Mary-ACC love COMP-TOP John-NOM COP
'It is John that loves Mary.'
(cited from Nishiyama, Whitman, and Yi 1996: 343)

(ii) [Kinoo Mary-ga tabeta no]-wa piza-??o da.
yesterday Mary-NOM ate COMP-TOP pizza-ACC COP
'It was pizza that Mary ate yesterday.'
(cited from Sadakane and Koizumi 1995: 9)

(97) a. Hanako-ga [Taro-ga bara-no hanataba-o okut-ta zyosei]-o
Hanako-NOM Taro-NOM rose-GEN bouquet-ACC give-PST woman-ACC
sagasitei-ru.
look.for-PRS
'Hanako looks for the woman who Taro gave a rose bouquet to.'

b.* [Hanako-ga [Taro-ga __ okut-ta zyosei]-o sagasitei-ru no]-wa
Hanako-NOM Taro-NOM give-PST woman-ACC look.for-PRS COMP-TOP
bara-no hanataba-o da.
rose-GEN bouquet-ACC COP
'lit. It was a rose bouquet that Hanako looks for the woman who Taro gave to.'
(cited from Hasegawa 2008: 67)

The sentence in (97a) contains a relative clause. The cleft sentence in (97b) is constructed based on (97a), in which the accusative-marked object in the relative clause, *bara-no hanataba-o* 'rose bouquet-ACC,' serves as the pivot of the cleft sentence. Note that (97b) is not acceptable, indicating that cleft sentences in Japanese are sensitive to island effects.

The third property of cleft sentences in Japanese is that they allow the appearance of multiple focused elements (Koizumi 1995; Kuwabara 1997; Hiraiwa and Ishihara 2002; 2012; Kizu 2005). See (98) for an illustration.

(98) [Taro-ga ageta no]-wa Hanako-*(ni) ringo-*(o) (3-tu) da.
Taro-NOM gave COMP-TOP Hanako-DAT apple-ACC 3-CL COP
'lit. It was (three) apples to Hanako that Taro gave.'
(cited from Hiraiwa and Ishihara 2002: 36)

The cleft sentence in (98) contains two focused elements, *Hanako-ni* 'Hanako-DAT' and *ringo-o* 'apple-ACC,' both of which must be marked with case markers. Cases like (98) are known as the multiple cleft construction.

Thus far, I have presented three properties of the cleft construction in Japanese (see the cited literature for other properties of the cleft construction in Japanese).[4] As demonstrated in the previous literature (Shimoyama 1995; Kuwabara 1996; Nishiyama, Whitman, and Yi 1996; Fukaya and Hoji 1999; Hiraiwa and Ishihara 2002; 2012; Saito 2004; Kizu 2005; Nakao 2009), reduced embedded questions in Japanese show parallel properties with cleft sentences. Accordingly, reduced questions are assumed to be derived from cleft sentences. Refer to the reduced embedded question shown below in (99).

(99) a. Ken-ga dareka-ni atta sooda.
Ken-NOM someone-DAT met I.heard
'I heard Ken met someone.'

b. Dakedo boku-wa [dare-ni da ka] soozoodekinai.
but I-TOP who-DAT be Q cannot.imagine
'But I cannot imagine who.'
(cited from Takahashi and Lin 2012: 133)

[4] Several analyses explaining the derivation of cleft sentences in Japanese have been proposed, such as the base-generation analysis (Matsuda 1997; Kizu 2005), verb-raising followed by remnant movement (Koizumi 1995; 2000; Kuwabara 1996), and focus movement followed by topicalization of remnant CP (Hiraiwa and Ishihara 2012). Since the specific approach is not the concern of this dissertation, interested readers are referred to those papers for details.

c. Dakedo boku-wa [[Ken-ga atta no]-ga dare-ni da ka] soozoodekinai.
but I-TOP Ken-NOM met that-NOM who-DAT be Q cannot.imagine
'But I cannot imagine who it was that Ken met.'
(cited from Takahashi and Lin 2012: 133)

d. Dakedo boku-wa [[Ken-ga atta no]-ga dare-ni da ka] soozoodekinai
but I-TOP Ken-NOM met that-NOM who-DAT be Q cannot.imagine

The sentence in (99a) serves to antecede both the reduced question in (99b) and the full-fledged embedded cleft sentence in (99c). The reduced question in (99b) consists of a case-marked *wh*-remnant, the copula *da*, and the question marker *ka*. The cleft sentence in (99c) contains a presuppositional clause, the case-marked pivot, the copula *da*, and the question marker *ka*. When the presuppositional clause of the cleft sentence, i.e., the clausal subject of the embedded clause, is dropped, indicated with grey shading in (99d), the reduced question in (99b) is derived (Saito 2004). The reduced cleft analysis has some advantages. First, it can account for the presence of a copula in reduced questions in Japanese. Second, ellipsis of a presuppositional clause of an embedded cleft sentence is independently allowed in Japanese because Japanese allows subject ellipsis (e.g., Saito 2004).

In the reduced question in (99), the remnant is a *wh*-phrase. As a matter of fact, non-*wh*-phrases are also permitted to be remnants in truncated clauses (Kuwabara 1997; Chiu, Fujii, and Sugawa 2008; Sakamoto 2011; Takahashi and Lin 2012). Consider the example below:

(100) a. Taroo-wa$_i$ [$_{CP}$ *pro*$_i$ Naomi-ni hanataba-o ageta to] itteita ga,
Taroo-TOP Naomi-DAT bouquet-ACC gave that said but
'Taroo said that he gave a bouquet to Naomi, but'

b. Ziroo-wa [$_{CP}$ daiamondo-no yubiwa-o da to] itteita.
Ziroo-TOP diamond-GEN ring-ACC COP that said
'lit. Ziroo said that a diamond ring.'
(cited from Kuwabara 1997: 63)

The sentence in (100a) serves to antecede the truncated clause in (100b), where the remnant is a non-*wh*-phrase, *daiamondo-no yubiwa-o* 'diamond-GEN ring-ACC,' followed by the copula *da* and the complementizer *to*. Cases like (100) can be explained by the reduced cleft analysis because pivots in cleft sentences can be non-*wh*-phrases. The full-fledged counterpart of (100b) is (101a).

(101) a. Ziroo-wa [$_{CP}$ [kare-ga kanozyo-ni ageta no]-ga daiamondo-no
Ziroo-TOP he-NOM she-DAT gave that-NOM diamond-GEN
yubiwa-o da to] itteita.
ring-ACC COP that said
'Ziroo said that it was a diamond ring that he gave her.'
(cited from Sakamoto 2011: 281)

b. Ziroo-wa [$_{CP}$ [kare-ga kanozyo-ni ageta no]-ga daiamondo-no
Ziroo-TOP he-NOM she-DAT gave that-NOM diamond-GEN
yubiwa-o da to] itteita
ring-ACC COP that said

When the presuppositional clause of the cleft sentence in (101a) is elided, as indicated in (101b), (100b) is derived. The observation that sluicing-like constructions can accommodate non-*wh*-

remnants has motivated linguists to propose alternative analyses beyond the PF deletion and LF copying approaches, which only account for sluicing involving *wh*-phrases located in SPEC CP.

Additionally, the reduced cleft analysis can explain the observation that reduced embedded questions in Japanese are sensitive to island effects. Consider (102):

(102) a. Hanako-ga [Taro-ga nanika-o okut-ta zyosei]-o sagasitei-ru
Hanako-NOM Taro-NOM something-ACC give-PST woman-ACC look.for-PRS
ga,
but
'Hanako looks for the woman who Taro gave something to, but'

b.* [nani-o da ka] sir-anai.
what-ACC COP Q know-not
'I do not know what.'
(cited from Hasegawa 2008: 67)

c.* [[Hanako-ga [Taro-ga __ okut-ta zyosei]-o sagasitei-ru no]-ga
Hanako-NOM Taro-NOM give-PST woman-ACC look.for-PRS COMP-NOM
nani-o da ka] sir-anai.
what-ACC COP Q know-not
'lit. I do not know what it was that Hanako looks for the woman who Taro gave to.'
(adapted from Hasegawa 2008: 67)

d. [[Hanako-ga [Taro-ga __ okut-ta zyosei]-o sagasitei-ru no]-ga
Hanako-NOM Taro-NOM give-PST woman-ACC look.for-PRS COMP-NOM
nani-o da ka] sir-anai
what-ACC COP Q know-not

The sentence in (102a) serves as the antecedent for the reduced question in (102b) and the embedded cleft sentence in (102c). The correlate of the remnant *wh*-phrase in (102b) is *nanika-o* 'something-ACC,' which is inside a relative clause. The unacceptability of (102b) indicates that reduced embedded questions in Japanese are sensitive to island effects. This observation is consistent with the reduced cleft approach, as cleft sentences in Japanese are also sensitive to island effects, as shown in (97). In line with the reduced cleft analysis, the full-fledged counterpart of the reduced question in (102b) is (102c). When the presuppositional clause of the cleft sentence is elided, as indicated in (102d), the reduced question is derived. As (102c) is unacceptable, it follows that (102b) is also unacceptable.

Lastly, the fact that reduced embedded questions in Japanese allow multiple remnants can also be accounted for by the reduced cleft analysis (Fukaya and Hoji 1999; Hiraiwa and Ishihara 2002; 2012). See (103) below.

(103) a. Taro-ga dareka-ni nanika-o ageta rasii ga,
Taro-NOM someone-DAT something-ACC gave seem but
'It seems that Taro gave someone something, but'

b. boku-wa [dare-*(ni) nani-*(o) da ka] wakara-nai.
I-TOP who-DAT what-ACC COP Q know-not
'lit. I don't know who what.'

(cited from Hiraiwa and Ishihara 2002: 40)

c. boku-wa [[Taro-ga ageta no]-ga dare-*(ni) nani-*(o) da ka]
I-TOP Taro-NOM gave COMP-NOM who-DAT what-ACC COP Q
wakara-nai.
know-not
'lit. I don't know who what it was that Taro gave.'

d. boku-wa [[Taro-ga ageta no]-ga dare-*(ni) nani-*(o) da ka]
I-TOP Taro-NOM gave COMP-NOM who-DAT what-ACC COP Q
wakara-nai
know-not

The sentence in (103a) is intended to antecede the truncated question in (103b) and the embedded cleft sentence in (103c). The reduced question contains two case-marked *wh*-remnants, *dare-ni* 'who-DAT' and *nani-o* 'what-ACC,' followed by the copula *da* and the question particle *ka*. The reduced question can be derived from the embedded cleft sentence in (103c) by eliding its presuppositional clause, as indicated in (103d). Reduced questions with multiple remnants are acceptable in Japanese, which is not surprising since their full-fledged counterparts, i.e., cleft sentences in Japanese, also allow multiple pivots, as shown in (98).

In summary, the reduced cleft analysis is a viable analysis to account for truncated embedded clauses in Japanese, where remnants can be *wh*-phrases or non-*wh*-phrases (Kuwabara 1996; 1997; Nishiyama, Whitman, and Yi 1996; Kizu 2005; Chiu, Fujii, and Sugawa 2008; Hiraiwa and Ishihara 2012). This analysis can explain the properties of the relevant truncated clauses, such as the presence of a copula and case-marked remnants. Truncated embedded clauses in Japanese can be directly derived by eliding a presuppositional clause of an embedded cleft

sentence, a case of subject ellipsis, which is permitted in Japanese (e.g., Saito 2004).

2.2.2.3 The reduced pseudo-cleft analysis

Truncated interrogative questions in some languages can be derived from pseudo-cleft constructions (Hiraiwa and Ishihara 2002; 2012; Paul and Potsdam 2012). A pseudo-cleft construction in English is given below (Akmajian 1970; Ross 1972; Higgins 1979).[5]

(104) [Who Nixon chose] was Agnew.
(cited from Akmajian 1970: 161)

A pseudo-cleft sentence is a copular sentence comprised of a free relative clause, a copula, and a focused constituent. A free relative clause is a relative clause that lacks a head (Caponigro 2003; van Riemsdijk 2017). Consider the comparison between (105a) and (105b):

(105) a. I returned the book$_i$ [which$_i$ you finished reading [e]$_i$ to your children] to the library.
b. You should return [what you have finished reading] to the library.
(cited from van Riemsdijk 2017: 2)

The relative clause in (105a), indicated with brackets, has a head, namely, *book*. In contrast, the free relative clause in (105b) does not have a head.

[5] As discussed in the prior literature (e.g., Akmajian 1970; Pinkham and Hankamer 1975), cleft constructions can be derived from pseudo-cleft constructions. Interested readers may refer to the cited literature for detailed discussions.

As discussed in the previous literature (e.g., Hiraiwa and Ishihara 2002; 2012), reduced embedded questions in Japanese can be derived from the pseudo-cleft construction in the language. Now let us consider the pseudo-cleft construction in Japanese.

(106) a. Pseudo-cleft sentence

[Ken-ga atta no]-wa Hana da.

Ken-NOM met NOML-TOP Hana COP

'Who Ken met was Hana.'

b. Cleft sentence

[Ken-ga atta no]-wa Hana-ni da.

Ken-NOM met COMP-TOP Hana-DAT COP

'It was Hana that Ken met.'

(106a) is a pseudo-cleft sentence in Japanese, and (106b) is a cleft sentence in the language. One of the differences between the two constructions is that a focused element is case-marked in the latter but not in the former. See (107) below for a schematic representation of the pseudo-cleft construction in Japanese.

(107) $[_{CP}$ …e_i…no]-TOP XP_i-Ø copula

(cited from Hiraiwa and Ishihara 2012: 145)

As can be seen from (107), a focused element is a complement of the copula and hence is not case-marked.

Now let us look at some properties of the pseudo-cleft construction in Japanese (Hiraiwa

and Ishihara 2002; 2012). Firstly, a focused element is not followed by a case marker. Secondly, noun-substitution is allowed in pseudo-cleft sentences. Consider the example below:

(108) a. Pseudo-cleft sentence

[Ken-ga atta no/hito]-wa Hana da.

Ken-NOM met NOML/person-TOP Hana COP

'Who/The person Ken met was Hana.'

b. Cleft sentence

[Ken-ga atta no/*hito]-wa Hana-ni da.

Ken-NOM met COMP/person-TOP Hana-DAT COP

'It was Hana that Ken met.'

In a pseudo-cleft sentence, *no* can be substituted with NPs like *hito* 'person.' Note that noun-substitution is not allowed in the cleft construction in Japanese, as demonstrated by the ungrammaticality of the cleft sentence in (108b) with *hito*.

Third, contrary to cleft sentences in Japanese, pseudo-cleft sentences are not sensitive to island effects (Hasegawa 2008). See example (109) below.

(109) a. Hanako-ga [Taro-ga bara-no hanataba-o okut-ta zyosei]-o

Hanako-NOM Taro-NOM rose-GEN bouquet-ACC give-PST woman-ACC

sagasitei-ru.

look.for-PRS

'Hanako looks for the woman who Taro gave a rose bouquet to.'

b. [Hanako-ga [Taro-ga __ okut-ta zyosei]-o sagasitei-ru no]-wa
Hanako-NOM Taro-NOM give-PST woman-ACC look.for-PRS NOML-TOP
bara-no hanataba da.
rose-GEN bouquet COP
'lit. What Hanako looks for the woman who Taro gave to was a rose bouquet.'
(cited from Hasegawa 2008: 67)

(109a) is a sentence containing a relative clause. (109b) shows a pseudo-cleft sentence that is constructed based on (109a). The pivot in the pseudo-cleft sentence is *bara-no hanataba* 'rose bouquet,' which is inside the relative clause in (109a). The fact that (109b) is acceptable indicates that pseudo-cleft sentences in Japanese are not sensitive to island effects.

Lastly, pseudo-cleft sentences in Japanese do not allow the appearance of multiple focused elements (Hiraiwa and Ishihara 2002; 2012), as shown in (110).

(110) * [Taro-ga ageta no]-wa Hanako ringo (3-tu) da.
Taro-NOM gave NOML-TOP Hanako apple 3-CL COP
(cited from Hiraiwa and Ishihara 2002: 36)

The multiple pseudo-cleft sentence in (110) is completely degraded.

Reduced embedded questions in Japanese exhibit properties that are parallel to those of pseudo-cleft sentences, which suggests that pseudo-cleft sentences may be a source of reduced questions (Hiraiwa and Ishihara 2002; 2012; Nakao and Yoshida 2005). Let us examine the reduced question in (111).

(111) a. Naoya-ga nanika-o tabeta rasii ga,
Naoya-NOM something-ACC ate I.heard but
'I heard that Naoya ate something, but'

b. boku-wa [nani da ka] siranai.
I-TOP what COP Q know.NEG
'I don't know what.'
(cited from Hiraiwa and Ishihara 2012: 142)

c. boku-wa [[Naoya-ga tabeta no]-ga nani da ka] siranai.
I-TOP Naoya-NOM ate NOML-NOM what COP Q know.NEG
'I don't know what the thing Naoya ate was.'

d. boku-wa [[Naoya-ga tabeta no]-ga nani da ka] siranai
I-TOP Naoya-NOM ate NOML-NOM what COP Q know.NEG

The sentence in (111a) is intended to antecede the reduced question in (111b) and the full-fledged embedded pseudo-cleft sentence in (111c). The reduced question contains a non-case-marked *wh*-remnant, a copula, and a question marker. The reduced question can be derived from the pseudo-cleft sentence in (111c) by eliding its presuppositional clause, as indicated in (111d). The reduced pseudo-cleft analysis explaining reduced questions with non-case-marked remnants has some advantages. First, the appearance of a copula in reduced questions can be accounted for since the copula also appears in pseudo-cleft sentences. Second, ellipsis of the presuppositional clause, which functions as the subject, is permitted in Japanese (Saito 2004).

Moreover, the reduced pseudo-cleft analysis can be used to explain the fact that reduced questions with non-case-marked remnants are not sensitive to island effects. Consider (112):

(112) a. Hanako-ga [Taro-ga nanika-o okut-ta zyosei]-o sagasitei-ru
Hanako-NOM Taro-NOM something-ACC give-PST woman-ACC look.for-PRS
ga,
but
'Hanako looks for the woman who Taro gave something to, but'

b. [nani da ka] sir-anai.
what COP Q know-not
'I do not know what.'
(cited from Hasegawa 2008: 67)

c. [[Hanako-ga [Taro-ga __ okut-ta zyosei]-o sagasitei-ru no]-ga
Hanako-NOM Taro-NOM give-PST woman-ACC look.for-PRS NOML-NOM
nani da ka] sir-anai.
what COP Q know-not
'lit. I do not know what the thing Hanako looks for the woman who Taro gave to was.'
(adapted from Hasegawa 2008: 67)

d. [[Hanako-ga [Taro-ga __ okut-ta zyosei]-o sagasitei-ru no]-ga
Hanako-NOM Taro-NOM give-PST woman-ACC look.for-PRS NOML-NOM
nani da ka] sir-anai
what COP Q know-not

The sentence in (112a) serves to antecede the reduced question in (112b) and the full-fledged embedded pseudo-cleft sentence in (112c). The correlate of the *wh*-remnant in (112b) is *nanika* 'something,' which is inside the relative clause. The acceptability of the reduced question

reveals that cases of reduced questions with non-case-marked remnants are insensitive to island effects. The lack of island effects in such cases can be captured by the reduced pseudo-cleft analysis, as pseudo-cleft sentences in Japanese are insensitive to island effects, as illustrated in (109). According to the reduced pseudo-cleft analysis, the full-fledged counterpart of the reduced question in (112b) is (112c). When the presuppositional clause in (112c) is dropped, the reduced question can be derived, as indicated in (112d).

Lastly, the reduced pseudo-cleft analysis can account for the observation that reduced embedded questions, in which the remnants are not accompanied by case markers, do not allow the presence of multiple remnants (Hiraiwa and Ishihara 2002; 2012). See (113) below.

(113) a. Taro-ga dareka-ni nanika-o ageta rasii ga,
Taro-NOM someone-DAT something-ACC gave seem but
'It seems that Taro gave someone something, but'

b.* boku-wa [dare nani da ka] wakara-nai.
I-TOP who what COP Q know-not
'lit. I don't know who what.'
(cited from Hiraiwa and Ishihara 2002: 40)

c.* boku-wa [[Taro-ga ageta no]-ga dare nani da ka] wakara-nai.
I-TOP Taro-NOM gave NOML-NOM who what COP Q know-not

d. boku-wa [[Taro-ga ageta no]-ga dare nani da ka] wakara-nai
I-TOP Taro-NOM gave NOML-NOM who what COP Q know-not

The sentence in (113a) antecedes the reduced question in (113b) and the embedded multiple pseudo-cleft sentence in (113c). The reduced question with two non-case-marked remnants is

completely unacceptable. The unacceptability of (113b) can be captured by the reduced pseudo-cleft analysis because the full-fledged counterpart of the reduced question, i.e., the multiple pseudo-cleft sentence in (113c), is also unacceptable.

In summary, the reduced pseudo-cleft analysis can explain cases of reduced embedded questions with non-case-marked remnants in Japanese (Hiraiwa and Ishihara 2002; 2012; Nakao and Yoshida 2005). This analysis can account for properties of reduced questions, such as the presence of a copula and the lack of island effects.

2.3 Summary

This chapter has introduced the four types of sluicing constructions and their properties. The sluicing constructions in *wh*-movement languages can be explained by the PF deletion approach and the LF copying approach, both of which posit that a remnant *wh*-phrase is located in SPEC CP. In addition, sluicing-like constructions have been observed in some *wh*-in-situ languages. To account for the distinctive properties of such constructions, three lines of analyses have been advanced: the pseudo-sluicing analysis, the reduced cleft analysis, and the reduced pseudo-cleft analysis. None of these analyses assume *wh*-movement in *wh*-in-situ languages. It is worth noting that more than one strategy may be employed to account for truncated clauses in some languages, such as Japanese (Takahashi 1994; Hasegawa 2008; Hiraiwa and Ishihara 2012; Fujiwara 2020), MC (Wei 2004; Bai and Takahashi 2023b), Uzbek (Gribanova 2013), Turkish (İnce 2009; Şener 2013; Palaz 2018; 2019), and Uyghur (Bai 2023a).

Chapter 3 Reduced embedded questions in Chakhar Mongolian

This chapter aims to investigate reduced embedded questions in Chakhar Mongolian (henceforth, CM) and propose theoretical analyses to account for the observed data.[1] This chapter consists of five sections. Section 3.1 illustrates some syntactic properties of CM, setting the stage for the following discussions on reduced questions in the language. Section 3.2 presents some constructions relevant to the discussions on reduced questions. Section 3.3 details reduced embedded single *wh*-questions in CM and argues that they can be analyzed in terms of the pseudo-sluicing analysis, the reduced pseudo-cleft analysis, or the reduced cleft analysis. Section 3.4 discusses reduced embedded questions with multiple *wh*-phrases and proposes to analyze them in terms of the reduced cleft analysis. Finally, section 3.5 summarizes this chapter.

3.1 Some syntactic properties of Chakhar Mongolian

3.1.1 Basic word order

The basic word order of simple sentences in CM is SOV (Poppe 1951; Binnick 1979; Guntsetseg 2012; Sakamoto 2012; Maki, Bao, and Hasebe 2015), as shown in (1) and (2).

[1] Some content of this chapter is based on Bai and Takahashi (2023a). I thank Daiko Takahashi for allowing me to use the relevant content.

(1) Bi-Ø uxila-ba.
I-NOM cry-PST
'I cried.'

(2) Ene xüü-Ø ene nom-i ungsi-ba.
this boy-NOM this book-ACC read-PST
'This boy read this book.'

As seen in (1), the subject precedes the verb in an intransitive sentence. The subject is marked with the nominative marker, which is assumed to be a zero morpheme in the language (Maki, Bao, and Hasebe 2015). In a transitive sentence, such as (2), the subject precedes the object, which in turn precedes the verb. The object is accompanied by the accusative marker *i*, which is alternatively realized as *yi* depending on whether it follows a consonant or a vowel.

Then, let us see the word order in a ditransitive sentence, as in (3).

(3) 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.'

As demonstrated in (3), the subject in turn precedes the dative-marked indirect object, the accusative-marked direct object, and the verb (Guntsetseg 2012).

3.1.2 Case-marking

CM is a language with a rich case system (Sechenbaatar 2003; Maki, Bao, and Hasebe 2015;

Litip 2017). CM features seven cases (Litip 2017; Gao 2020), as shown in the table below.

Table 1: Case markers in CM

Nominative	-Ø
Genitive	-yin/-un/-ün/-u/-ü
Accusative	-yi/-i
Dative-Locative	-du/-dü/-tu/-tü
Instrumental	-iyar/-iyer/-bar/-ber
Ablative	-ača/-eče
Comitative	-tai/-tei -luγa/-lüge

(cited from Litip 2017: 168)

As can be seen from Table 1, the nominative case has a zero morpheme. All the other cases have overt morphemes and, in fact, alternations, which depend on phonological processes, such as vowel harmony and vowel and consonant epenthesis (Guntsetseg 2012; Janhunen 2012).

The accusative case-marking in CM is worth noting. Whether or not the overt accusative case marker appears is determined by the referentiality, definiteness, and specificity of the objects (Binnick 1979; Guntsetseg 2012; Maki, Bao, and Hasebe 2015; von Heusinger and Kornfilt 2017). Concretely, objects with high referentiality, such as definite NPs and NPs denoting [+human] features, must be followed by the overt accusative marker. See the sentences in (4) for an illustration.

(4) a. Ene xüü-Ø ene nom-i ungsi-ba.
this boy-NOM this book-ACC read-PST
'This boy read this book.'

b. Mergen-Ø tere xümün-i čoxi-ba.
Mergen-NOM that person-ACC hit-PST
'Mergen hit that person.'

c. Mergen-Ø nige xümün-i čoxi-ba.
Mergen-NOM one person-ACC hit-PST
'Mergen hit a person.'

The objects in (4a) and (4b) are definite NPs, which must be accompanied by the overt accusative marker. The object in (4c) denotes a human entity and thus appears with the overt accusative marker irrespective of the definiteness (Maki, Bao, and Hasebe 2015).

Furthermore, in the case of indefinite objects, the overt accusative marker is used when an object is indefinite but specific (von Heusinger and Kornfilt 2017), as shown in (5).

(5) Ene xüü-Ø nige nom-i ungsi-ba.
this boy-NOM one book-ACC read-PST
'This boy read a certain book.'

The object in (5) denotes a specific book and is thereby marked accusative overtly.

Lastly, the case-marking of indefinite and non-specific objects has been under debate. Maki, Bao, and Hasebe (2015) assume that those objects are marked accusative with a zero morpheme. Sechenbaatar (2003) observes that they are marked nominative, which also involves a zero

morpheme. Guntsetseg (2012) assumes that they are not assigned case. This chapter follows the first view, as illustrated in (6), though the choice does not affect the discussions in this chapter.

(6) Ene xüü-Ø nom-Ø ungsi-ba.
this boy-NOM book-ACC read-PST
'This boy read a book.'

The object in (6) is a weak indefinite phrase, which is accompanied by the accusative marker with a zero morpheme.

3.1.3 Agreement-marking

In CM, verbs do not inflect in accordance with the subjects or objects of the sentences (Gao 2020), as illustrated in (7) and (8).

(7) Batu-Ø öčügedür nada-yi/čima-yi/tan-i/tegün-i/
Batu-NOM yesterday 1SG-ACC/2SG-ACC/2SG.HON-ACC/3SG-ACC/
biden-i/tanus-i/teden-i ol-ǰu üǰe-ǰei.
1PL-ACC/2PL-ACC/3PL-ACC AUX-ADVL see-PST.CON
'Batu saw me/you/you (honorific)/him/us/you (plural)/them yesterday.'

(8) Bi/Či/Ta/Tere/Bide/Tanus/Tede-Ø öčügedür Batu-yi ol-ǰu
1SG/2SG/2SG.HON/3SG/1PL/2PL/3PL-NOM yesterday Batu-ACC AUX-ADVL
üǰe-ǰei.
see-PST

‘I/You/You(honorific)/He/We/You(plural)/They saw Batu yesterday.’

As shown in (7) and (8), only tense suffixes are attached to the verbs.

3.1.4 Possessive-marking

This section discusses what are called personal possessive clitics (PPC) in the literature on Mongolian (Sakamoto 2012; Litip 2017; Brosig, Gegentana, and Yap 2018; Wu 2019). Consider the following examples:

(9) a. Öxin degüü-Ø mini Xöxeχota-du saγu-daγ.
girl young-NOM 1SG.PPC Hohhot-DAT live-HBT
‘My younger sister lives in Hohhot.’

b. Öxin degüü-Ø čini χamiγa saγu-daγ bui?
girl young-NOM 2SG.PPC where live-HBT PRT
‘Where does your younger sister live?’

c. Öxin degüü-Ø ni Xöxeχota-du saγu-daγ.
girl young-NOM 3SG.PPC Hohhot-DAT live-HBT
‘His younger sister lives in Hohhot.’

The PPCs in (9a-c) serve to indicate the first-, second-, and third-person possessor, respectively, of the subject noun phrases, which is the basic function of PPCs in CM (Sechenbaatar 2003; Sakamoto 2012; Gao 2014). In addition to the PPCs shown in (9a-c), CM has first-person and second-person plural PPCs, *manu* and *tanu*, which are generally used in the formal register

(Litip 2017).

PPCs have various functions (Guntsetseg 2012; Wu 2019). Let us see some functions of the third-person PPC, which repeatedly appears in this chapter. First, let us consider the example below.

(10)	Tere-Ø	ni	neite-yin	nom-un	sang	bol-una.
	that-NOM	3SG.PPC	public-GEN	book-GEN	storeroom	be-NPST
	'That is the public reading room.'					
	(cited from Gao 2020: 143)					

The PPC *ni* in (10) is used to indicate a third-person nominal subject (Sechenbaatar 2003; Sakamoto 2012; Gao 2014). It yields the implication that the subject does not refer to the addresser or the addressee or that it is unrelated to the addresser or the addressee (Gao 2017).

Moreover, *ni* functions to show a partitive relation, i.e., part-of relation (Guntsetseg 2012), as in (11).

(11)	Context: There are some fruits on the table. I say to my friend Lili:					
	(Dotura-xi)	xoyar	almurad	ni	ayumar	ünetei.
	inside-INDIC	two	apple	3SG.PPC	very	expensive
	'Two apples (of the fruits) are very expensive.'					

The nominal phrase marked by *ni* refers to a subset of the superset, i.e., the fruits in the context.

Additionally, *ni* is used to nominalize a subject clause and mark it as a subject (Gong 2022), as shown in (12).

(12) [Tere-Ø öber-tegen ire-xü]-Ø ni ǰoxistai.
he-NOM self-DAT.REF.POSS come-INF-NOM 3SG.PPC appropriate
'That he comes here himself is appropriate.'

Lastly, *ni* can be used to indicate a presuppositional clause of a cleft or a pseudo-cleft construction (Sakamoto 2012), as shown in (13) and (14), respectively.

(13) [Batu-yin ide-gsen]-Ø ni (bol) tere tomo boγursuγ
Batu-GEN eat-PERF.ADN-NOM 3SG.PPC TOP that big cake
bol-una.
COP-NPST
'It was that big cake that Batu ate.'

(14) [Mergen-ü Begeǰing-dü oči-γsan čaγ]-Ø ni (bol) öčügedür
Mergen-GEN Beijing-DAT go-PERF time-NOM PPC TOP yesterday
bol-una.
be-NPST
'The time that Mergen went to Beijing was yesterday.'

The usage of *ni* will be further discussed in this chapter.

Next, let us look at the reflexive-possessive suffix in CM (Poppe 1951; Guntsetseg 2012; Janhunen 2012; Bao, Hasebe, and Maki 2015; Brosig, Gegentana, and Yap 2018; Wu 2019). The reflexive-possessive suffix is a bound morpheme, *AA*, which must be attached to an NP and follow the case suffix on the NP. When the word it attaches to ends with a vowel, the

consonant /b/ is inserted, and the form of the suffix is thereby *ben/ban*. When the word it attaches to ends with a consonant, /iy/ is inserted; thus, the form is *iyan/iyen* (Poppe 1951; Hasibaatar 2012; Wu 2019). The reflexive-possessive suffix is used invariably in reference to all persons and is controlled by the subject of the sentence (Janhunen 2012). See the examples in (15) below.

(15) a. Bi-Ø nom-iyan χudaldu-ba.
1SG-NOM book-REF.POSS sell-PST
'I sold my book.'

b. Či-Ø nom-iyan χudaldu-ba.
2SG-NOM book-REF.POSS sell-PST
'You sold your book.'

c. Tere-Ø nom-iyan χudaldu-ba.
3SG-NOM book-REF.POSS sell-PST
'He sold his book.'

As shown (15a-c), the reflexive-possessive suffix does not have different forms conforming to the person and number features of the controlling subjects (Guntsetseg 2012).

Note that the possessive-reflexive suffix can be fused with case markers, such as the dative marker, as illustrated in (16).

(16) a. Bi-Ø degüü-degen ene nom-i ög-be.
1SG-NOM younger.brother-DAT.REF.POSS this book-ACC give-PST
'I gave this book to my younger brother.'

b. Tere-Ø degüü-degen ene nom-i ög-be.
3SG-NOM younger.brother-DAT.REF.POSS this book-ACC give-PST
'He gave this book to his younger brother.'

c. Či-Ø degüü-degen ene nom-i ög-čü
2SG-NOM younger.brother-DAT.REF.POSS this book-ACC give-ADVL
bol-una uu?
AUX-NPST Q.PRT
'Can you give this book to your younger brother?'

It is worth mentioning that (16c) is a yes-no question, which ends with the question particle *üü*/*uu* in CM (Maki, Bao, and Hasebe 2015; Litip 2017).

In addition, the reflexive-possessive suffix is often attached to the *self*-pronoun (Guntsetseg 2012; Maki, Bao, and Hasebe 2015), as shown in (12) above, repeated below as (17).

(17) [Tere-Ø öber-tegen ire-xü]-Ø ni ǰoxistai.
he-NOM self-DAT.REF.POSS come-INF-NOM PPC appropriate
'That he comes here himself is appropriate.'

In (17), the fused form of a dative marker and the reflexive-possessive suffix is attached to *öber* 'self.'

3.1.5 *Wh*-in-situ

Like other dialects of Mongolian, CM is a *wh*-in-situ language (Janhunen 2012; Maki, Bao, and

Hasebe 2015).

(18) Xen-Ø sü-Ø uuγu-γsan bui?
who-NOM milk-ACC drink-PERF PRT
'Who drank milk?'

(19) Ene xeüxen-Ø yaγu-Ø uuγu-γsan bui?
this girl-NOM what-ACC drink-PERF PRT
'What did this girl drink?'

(20) Batu-Ø xen-dü ene nom-i öggü-gsen bui?
Batu-NOM who-DAT this book-ACC give-PERF Q.PRT
'To whom did Batu give this book?'

The subject in (18), the object in (19), and the indirect object in (20) are *wh*-phrases, which all stay in the subject and the object positions in lieu of moving to the edge of the clauses.

3.1.6 *Pro*-drop

Another property of CM is that it is a *pro*-drop language, allowing arguments such as subjects and objects not to be overtly expressed (Sakamoto and Bao 2019). Consider the following data, where two speakers, A and B, engage in a conversation:

(21) A: Batu-Ø xen-i ol-ǰu üǰe-gsen bui?
Batu-NOM who-ACC AUX-ADVL see-PERF PRT
'Who did Batu see?'

B: *e* Suruna-yi ol-ǰu üǰe-be.

Suruna-ACC AUX-ADVL see-PST

'lit. *e* saw Suruna.'

(22) A: Xen-Ø Suruna-yi ol-ǰu üǰe-gsen bui?

who-NOM Suruna-ACC AUX-ADVL see-PERF PRT

'Who saw Suruna?'

B: Batu-Ø *e* ol-ǰu üǰe-be.

Batu-NOM AUX-ADVL see-PST

'lit. Batu saw *e*.'

(23) A: Batu-Ø Suruna-yi ol-ǰu üǰe-gsen üü?

Batu-NOM Suruna-ACC AUX-ADVL see-PERF PRT

'Did Batu see Suruna?'

B: *e* *e* ol-ǰu üǰe-be.

AUX-ADVL see-PST

'lit. *e* saw *e*.'

The subject in B's utterance in (21) is not overtly expressed (null arguments are indicated with *e*) though it is clear in the context that it refers to the subject in A's utterance. Similarly, the object in (22B) and the subject and the object in (23B) are null, but the sentences are perfectly acceptable.

3.2 Some important constructions

This section details some constructions pertinent to the discussions in this chapter.

3.2.1 Subordinate clauses

The following subsections discuss complement clauses, subject clauses, relative clauses, and adverbial clauses in CM.

3.2.1.1 Complement clauses

This subsection focuses on complement clauses in CM (von Heusinger, Klein, and Guntsetseg 2011; Janhunen 2012; Sakamoto 2012; Bao, Maki, and Hasebe 2015; Fong 2019; Peters 2020; Gong 2022). Let us start our discussion with non-finite complement clauses containing non-finite predicates. Consider (24):

(24) Batu-Ø [Tana-Ø/yin amitan-u xüriyeleng dotura-xi
Batu-NOM Tana-NOM/GEN animal-GEN garden inside-INDIC
tere bars-ača ayu-χu]-yi (ni) mede-ne.
that tiger-ABL fear-INF-ACC PPC know-NPST
'Batu knows that Tana fears that tiger in the zoo.'

Non-finite complement clauses in CM have three important characteristics. First, they are case-marked. The complement clause in (24), indicated with brackets, is accompanied by the accusative marker. The complement clause serves as the object of the matrix verb and hence is marked accusative like an NP object, which is illustrated in (25).

(25) Bi-Ø tere yabudal-i mede-be.
I-NOM that thing-ACC know-PST
'I knew that thing.'

This type of complement clauses is called object clauses (von Heusinger, Klein, and Guntsetseg 2011; Binnick 2012).

Second, the subjects of complement clauses may be marked nominative or genitive (von Heusinger, Klein, and Guntsetseg 2011; Maki, Bao, and Hasebe 2015; Peters 2020; Aravind 2021).[2] Third, the case-marked object clauses are followed by the third-person PPC *ni*, as

[2] In addition to nominative and genitive, subjects of non-finite complement clauses may be marked accusative (von Heusinger, Klein, and Guntsetseg 2011; Maki, Bao, and Hasebe 2015; Peters 2020; Aravind 2021), as illustrated in (i).

(i) Batu-Ø [Tana-Ø/yin/yi amitan-u xüriyeleng dotura-xi tere bars-ača
Batu-NOM Tana-NOM/GEN/ACC animal-GEN garden inside-INDIC that tiger-ABL
ayu-χu]-yi (ni) mede-ne.
fear-INF-ACC PPC know-NPST
'Batu knows that Tana fears that tiger in the zoo.'

In (i), the nominative, genitive, and accusative subjects are all correct. Nevertheless, as discussed in the previous literature (Guntsetseg 2016; Aravind 2021), there are cases where the accusative subject is dispreferred. For instance, the accusative subject is rejected by some speakers when the subject is adjacent to an object marked with the overt accusative marker, as shown in (ii).

(ii) Bi-Ø [Mergen-Ø/ü/??i ene χulaγaiči-yi bari-γsan]-i (ni) mede-ne.
I-NOM Mergen-NOM/GEN/ACC this thief-ACC catch-PERF-ACC PPC know-NPST
'I know that Mergen caught this thief.'

In (ii), the subject of the complement clause precedes an object marked with the overt accusative marker, *χulaγaiči-yi* 'thief-ACC.' Half of the native speakers I consulted rejected the accusative subject, though all of them accepted

shown in (24). According to the previous literature (Bao, Maki, and Hasebe 2015), PPCs here function to indicate the subject of a complement clause. Consider the examples (24) above and (26-27) below:

(26) Bi-Ø [Mergen-ü ene χulaγaiči-yi bari-γsan]-i (ni/*mini/*čini)
I-NOM Mergen-GEN this thief-ACC catch-PERF-ACC 3SG/1SG/2SG.PPC
mede-ne.
know-NPST
'I know that Mergen caught this thief.'

(27) Či-Ø [tegün-ü önüdür χamiγa yabu-γsan]-i (ni/*mini/*čini)
you-NOM 3SG-GEN today where go-PERF-ACC 3SG/1SG/2SG.PPC
mede-ne üü?
know-NPST Q.PRT
'Do you know where he went today?'

In (24) and (26-27), the subjects of the respective matrix clauses are in the third, first, and second person, while the subjects of the object clauses are all in the third person. In these cases, only the third-person PPC *ni* following the object clauses is acceptable.

Then, let us consider the following set of examples, where the subjects of the object clauses are in the second person.

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the accusative subject in (i) above. The accusative case-marking on the subject is not related to the discussion of this dissertation. Interested readers can refer to the cited literature for details.

(28) Bi-Ø [činü öčügedür yamar ǰimis-Ø ide-gsen]-i
I-NOM 2SG.GEN yesterday what.kind fruit-ACC eat-PERF-ACC
(čini/*mini/*ni) mede-ne.
2SG/1SG/3SG.PPC know-NPST
'I know what kind of fruit you ate yesterday.'

(29) Batu-Ø [činü öčügedür yamar ǰimis ide-gsen]-i
Batu-NOM 2SG.GEN yesterday what.kind fruit eat-PERF-ACC
(čini/*mini/*ni) mede-ne.
2SG/1SG/3SG.PPC know-NPST
'Batu knows what kind of fruit you are yesterday.'

(30) a.* Či-Ø [činü öčügedür yamar ǰimis ide-gsen]-i čini/mini/ni
you-NOM 2SG.GEN yesterday what fruit eat-PERF-ACC 2SG/1SG/3SG.PPC
čegeǰile-ǰü bai-na uu?
remember-ADVL AUX-NPST Q.PRT
'Do you remember what kind of fruit you ate yesterday?'

b. Či-Ø [öčügedür yamar ǰimis ide-gsen]-iyen čegeǰile-ǰü
you-NOM yesterday what.kind fruit eat-PERF-REF.POSS remember-ADVL
bai-na uu?
AUX-NPST Q.PRT
'Do you remember what kind of fruit you ate yesterday?'

In (28) and (29), where the subjects of the object clauses are second-person pronouns, only the second-person PPC is grammatical. On the other hand, in (30a), where the subjects of the matrix and embedded clauses are both in the second person, none of the PPCs are allowed. In this case,

only the subject-controlled reflexive-possessive suffix is allowed, as shown in (30b). The reflexive-possessive suffix identifies the subject of the complement clause, which co-refers with the matrix subject (Guntsetseg 2012).

The same pattern is observed in cases where the subjects of the object clauses are first-person pronouns, as shown in (31-33).

(31) Či-Ø [minu Batu-yi xeǰiye tani-γsan]-i
you-NOM 1SG.GEN Batu-ACC when acquaint-PERF-ACC
(mini/*čini/*ni) mede-ye geǰü sana-ǰu bai-na uu?
1SG/2SG/3SG.PPC know-IMP that hope-ADVL AUX-NPST Q.PRT
'Do you want to know when I got acquainted with Batu?'

(32) Tana-Ø [minu Batu-yi xeǰiye tani-γsan]-i
Tana-NOM 1SG.GEN Batu-ACC when know-PERF-ACC
(mini/*čini/*ni) mede-xü ügei.
1SG/2SG/3SG.PPC know-INF not
'Tana doesn't know when I got acquainted with Batu.'

(33) a.* Bi-Ø [minu xeǰiye tegün-i üǰe-ǰü önggere-gsen]-i
I-NOM 1SG.GEN when 3SG-ACC see-ADVL pass-PERF-ACC
mini/čini/ni čegeǰile-ǰü ügei.
1SG/2SG/3SG.PPC remember-ADVL not
'I don't remember when I saw him.'

b. Bi-Ø [xeǰiye tegün-i üǰe-ǰü önggere-gsen]-iyen čegeǰile-ǰü ügei.
I-NOM when 3SG-ACC see-ADVL pass-PERF-REF.POSS remember-ADVL not
'I don't remember when I saw him.'

In (31) and (32), the subjects of the object clauses are both first-person pronouns, and as a result, only the first-person PPC is grammatical. In contrast, in (33a), where the subjects of the matrix clause and the object clause are both in the first person, none of the PPCs is allowed. Similar to (30b), only the subject-controlled reflexive-possessive suffix is acceptable, as in (33b).

The discussions so far show that a PPC or a reflexive-possessive suffix indicates the subject of an object clause (Guntsetseg 2012; Bao, Maki, and Hasebe 2015). Furthermore, my study shows that the subject of an object clause can be omitted when a PPC is present. Consider the examples below:

(34) Či-Ø [öčügedür yamar ǰimis ide-gsen]-i ni
you-NOM yesterday what fruit eat-PERF-ACC 3SG.PPC
čegeǰile-ǰü bai-na uu?
remember-ADVL AUX-NPST Q.PRT
'Do you remember what kind of fruit (he/she) ate yesterday?'

(35) Či-Ø [Batu-yi xeǰiye tani-γsan]-i mini mede-ye
you-NOM Batu-ACC when acquaint-PERF-ACC 1SG.PPC know-IMP
geǰü sana-ǰu bai-na uu?
that hope-ADVL AUX-NPST Q.PRT
'Do you want to know when (I) got acquainted with Batu?'

The third-person PPC in (34) indicates that the subject of the complement clause is a third-person pronoun. Likewise, the first-person PPC in (35) denotes that the subject of the object clause is a first-person pronoun. The examples (31) and (35) form a minimal pair. In the former

case, the complement clause has an overt subject, and the PPC is thus optional. In the latter case, the complement clause does not have an overt subject, and the PPC is present to indicate the subject.

Thus far, I have discussed non-finite complement clauses and their characteristics. Next, let us consider finite complement clauses, which are introduced by a complementizer (Fong 2019; Peters 2020). See the examples (36) and (37).

(36) Batu-Ø [Mergen-Ø/i/*ü očügedür Xöxeχota-du siraγsan
Batu-NOM Mergen-NOM/ACC/GEN yesterday Hohhot-DAT roasted
χonin miχa-Ø ide-be geǰü] (*ni) üǰe-ǰü bai-na.
sheep meat-ACC eat-PST COMP PPC think-ADVL AUX-NPST
'Batu thinks that Mergen ate roasted lamb in Hohhot yesterday.'

(37) Bi-Ø [Mergen-Ø/i/*ü ene χulaγaiči-yi bari-ba geǰü]
I-NOM Mergen-NOM/ACC/GEN this thief-ACC catch-PST COMP
(*ni) xele-be.
PPC say-PST
'I said that Mergen caught this thief.'

Finite complement clauses in CM have the following characteristics. First, complement clauses are introduced by the complementizer *geǰü*. Second, subjects of complement clauses can be marked nominative or accusative but not genitive (Fong 2019; Peters 2020). Moreover, the embedded predicates are followed by tense suffixes instead of aspect markers used in non-finite complement clauses. Lastly, PPCs cannot appear in finite complement clauses.

3.2.1.2 Subject clauses

The discussion in this subsection focuses on subject clauses in CM (Peters 2020; Aravind 2021). Let us first consider the example below.

(38) [Tere-Ø/Tegün-ü/*Tegün-i kompani-du ire-gsen]-Ø *(ni)
he-NOM/he-GEN/he-ACC company-DAT come-PERF-NOM 3SG.PPC
nama-yi soči-γa-ba.
me-ACC surprise-CAUS-PST
'That he came to the company surprised me.'

As discussed in the previous literature (Peters 2020; Aravind 2021), subject clauses allow their subjects to be marked nominative or genitive but not accusative. Furthermore, the presence of the PPC in subject clauses is always obligatory.

A point worth noting is that the third-person PPC appears in subject clauses, irrespective of the person and number features of the subjects of the subject clauses. Consider the examples (38) above and (39-40) below:

(39) a. [Minu kompani-du ire-gsen]-Ø *(ni) teden-i
1SG.GEN company-DAT come-PERF-NOM 3SG.PPC 3PL-ACC
soči-γa-ba.
surprise-CAUS-PST
'That I came to the company surprised them.'

b.* [Minu kompani-du ire-gsen]-Ø mini teden-i
1SG.GEN company-DAT come-PERF-NOM 1SG.PPC 3PL-ACC
soči-γa-ba.
surprise-CAUS-PST
'That I came to the company surprised them.'

(40) a. [Činü kompani-du ire-gsen]-Ø *(ni) nama-yi
2SG.GEN company-DAT come-PERF-NOM 3SG.PPC me-ACC
soči-γa-ba.
surprise-CAUS-PST
'That you came to the company surprised me.'

b.?? [Činü kompani-du ire-gsen]-Ø *(čini) nama-yi
2SG.GEN company-DAT come-PERF-NOM 2SG.PPC me-ACC
soči-γa-ba.
surprise-CAUS-PST
'That you came to the company surprised me.'

In (38-40), the subjects of the subject clauses are third-, first-, and second-person pronouns, respectively. The appearance of the third-person PPC is always allowed and obligatory. As marked in (39b) and (40b), the presence of a first-person and second-person PPC following subject clauses is degraded.

The discussions above show that PPCs serve different functions in subject and complement clauses. In subject clauses, the PPC is always obligatory. It is used to nominalize a subject clause and indicate it as the subject (Gong 2022). Clausal subjects in (38-40) are marked nominative with the zero morpheme, so they need the obligatory support from *ni* to have their

demarcation shown clearly. On the other hand, in a complement clause, a PPC is used to indicate the subject of the complement clause and is optional in a complement clause containing an overt subject, as discussed in the previous section.

3.2.1.3 Relative clauses

This subsection considers relative clauses in CM (Hsiao 2012; Maki, Bao, and Hasebe 2015; Aravind 2021; Gong 2022). Let us start our discussion with (41) below.

(41) Mergen-Ø [Batu-Ø/yin önüdür nige xümün-dü öggü-
Mergen-NOM Batu-NOM/GEN today one person-DAT give-
gsen] yaɣuma-yi ab-uya geǰü sana-ǰu bai-na.
PERF.ADN thing-ACC buy-IMP that hope-ADVL AUX-NPST
'Mergen hopes to buy the thing that Batu gave to a person today.'

In relative clauses in CM, the subject can be assigned nominative or genitive case (Maki, Bao, and Hasebe 2015). Moreover, there is no relative pronoun in relative clauses in CM, unlike in English.

As discussed in the previous literature (Aravind 2021; Bai and Takahashi 2023a), relative clauses constitute islands for movement in CM.

(42) a. Mergen-Ø [Tana-du nom xürge-gsen] xümün-i ol-ǰu
Mergen-NOM Tana-DAT book give-PERF.ADN person-ACC AUX-ADVL
üǰe-be.
see-PST
'Mergen saw the person who gave Tana a book.'

b.* Tana-du Mergen-Ø [*t* nom-Ø xürge-gsen] xümün-i
Tana-DAT Mergen-NOM book-ACC give-PERF.ADN person-ACC
ol-ǰu üǰe-be.
AUX-ADVL see-PST
'lit. Tana, Mergen saw the person who gave a book.'

(42a) contains a relative clause, indicated with brackets. When an element, such as the indirect object *Tana-du* 'Tana-DAT,' is moved out of the relative clause to the initial position of the sentence, the sentence becomes unacceptable, as shown in (42b). Note that clause-internal scrambling and long-distance scrambling are both allowed in Mongolian (Sakamoto 2012; 2017; Öztürk 2013; Maki et al. 2016; Gong 2022).[3] Accordingly, the unacceptability of moving an

[3] Clause-internal scrambling and long-distance scrambling are both observed in Mongolian (Sakamoto 2012; 2017; Öztürk 2013; Maki et al. 2016; Gong 2022), as shown in (i) and (ii), respectively.

(i) a. Baɣatur-Ø ene nom-i ungsi-jai.
Bagatur-NOM this book-ACC read-PST.CON
'Bagatur read this book.'

b. Ene nom_1-i Baɣatur-Ø $\__1$ ungsi-jai.
this book-ACC Bagatur-NOM read-PST.CON
'This $book_1$, Bagatur read $\__1$.'
(cited from Sakamoto 2017: 182)

(ii) a. Baɣatur-Ø [$_{CP}$ Ulaɣan-Ø ene nom-i ungsi-ɣsan gejü] bodoju bai-na.
Bagatur-NOM Ulagan-NOM this book-ACC read-PST.ADN C think COP-PRS

element out of relative clauses indicates that relative clauses constitute islands in Mongolian.

Let us consider another example.

(43) a. Tede-Ø [yamar Balkan xele-Ø xele-deg] xümün-i
they-NOM what.kind Balkan language-ACC speak-HBT person-ACC
xölüsüle-gsen bui?
hire-PERF Q.PRT
'lit. Which Balkan language did they hire a person who speaks?'

b.* Yamar Balkan xele-Ø tede-Ø [*t* xele-deg] xümün-i
what.kind Balkan language-ACC they-NOM speak-HBT person-ACC
xölüsüle-gsen bui?
hire-PERF Q.PRT
'lit. Which Balkan language did they hire a person who speaks?'

The relative clause in (43a), which contains an in-situ *wh*-phrase, is acceptable. When the *wh*-phrase is moved out of the relative clause, the resulting sentence is not acceptable, as shown in (43b). The examples (42) and (43) illustrate the relative clause island effect in CM.

'Bagatur thinks [$_{CP}$ that Ulagan read this book].'

b. Ene nom$_1$-i Baɣatur-Ø [$_{CP}$ Ulaɣan-Ø _$_1$ ungsi-ɣsan gejü] bodoju bai-na.
this book-ACC Bagatur-NOM Ulagan-NOM read-PST.ADN C think COP-PRS
'This book$_1$, Bagatur thinks [$_{CP}$ that Ulagan read _$_1$].'
(cited from Sakamoto 2017: 183)

As shown in (ib), the object undergoes scrambling. In (iib), the object in the embedded clause is scrambled to the matrix clause. Both cases are acceptable in Mongolian.

3.2.1.4 Adverbial clauses

This subsection considers adverbial clauses in CM (Guntsetseg 2012; Bao, Maki, and Hasebe 2015; Aravind 2021; Gong 2022).

(44) Batu-Ø [Suruna-Ø/yi Mergen-dü χairatai (učir)-ača]
Batu-NOM Suruna-NOM/ACC Mergen-DAT fond reason-ABL
aγurla-na.
displease-NPST
'Batu is displeased because Suruna is fond of Mergen.'

In adverbial clauses, the subjects can be marked nominative or accusative (Maki, Bao, and Hasebe 2015; Gong 2022).

Next, let us examine whether adverbial clauses constitute islands for movement in CM.

(45) Context: Tana, Batu, and Mergen are good friends. Batu and Mergen had a fight.

a. Tana-Ø [Batu-Ø Mergen-i čoxi-γsan (učir)-ača] uxila-ba.
Tana-NOM Batu-NOM Mergen-ACC hit-PERF reason-ABL cry-PST
'Tana cried because Batu hit Mergen.'

b.* Mergen-i Tana-Ø [Batu-Ø *t* čoxi-γsan (učir)-ača] uxila-ba.
Mergen-ACC Tana-NOM Batu-NOM hit-PERF reason-ABL cry-PST
'lit. Mergen, Tana cried because Batu hit.'

The sentence (45a) containing an adverbial clause is acceptable. Movement of an element, such as the direct object *Mergen-i* 'Mergen-ACC,' out of the adverbial clause renders the sentence unacceptable, as in (45b). Since clause-internal scrambling and long-distance scrambling are both allowed in Mongolian (Sakamoto 2012; 2017; Öztürk 2013; Maki et al. 2016; Gong 2022), the unacceptability of moving an element out of adverbial clauses indicates that adverbial clauses constitute islands.

Let us look at another set of data.

(46) a. Batu-Ø [Suruna-Ø xen-eče nige asaγulta-Ø asaγu-γsan
Batu-NOM Suruna-NOM who-ABL one question-ACC ask-PERF
(učir)-ača] bayarla-γsan bui?
reason-ABL please-PERF Q.PRT
'lit. Who was Batu pleased because Suruna asked a question?'

b.* Xen-eče Batu-Ø [Suruna-Ø *t* nige asaγulta-Ø asaγu-γsan
who-ABL Batu-NOM Suruna-NOM one question-ACC ask-PERF
(učir)-ača] bayarla-γsan bui?
reason-ABL please-PERF Q.PRT
'lit. Who was Batu pleased because Suruna asked a question?'

The adverbial clause in (46a), which includes an in-situ *wh*-phrase is acceptable. When the *wh*-phrase is moved out of the adverbial clause, as in (46b), the sentence becomes unacceptable. Therefore, we can observe that there is an adjunct island effect in CM (Bai and Takahashi 2023a).

3.2.2 Passive constructions

This subsection presents passive constructions in CM (Guntsetseg 2012). Let us start our discussion with the active-passive alternation shown in (47).

(47) a. Bi-Ø Tana-yin sine sondor-i ol-ǰu üǰe-be.
I-NOM Tana-GEN new necklace-ACC AUX-ADVL see-PST
'I saw Tana's new necklace.'

b. Tana-yin sine sondor-Ø (ni) nada-du ol-ǰu üǰe-gde-be.
Tana-GEN new necklace-NOM PPC me-DAT AUX-ADVL see-PASS-PST
'Tana's new necklace was seen by me.'

In (47a), which is a typical active sentence, the agent argument is marked nominative, and the theme argument appears with the accusative marker. When it is passivized, (47b) is obtained: the theme argument is promoted to the subject and marked nominative, optionally followed by the third person PPC, whereas the agent argument is demoted to the oblique (dative) phrase.

The same pattern is obtained in cases including clausal objects.

(48) a. Bi-Ø [Batu-yin ene χulaγaiči-yi bari-γsan]-i (ni) mede-ne.
I-NOM Batu-GEN this thief-ACC catch-PERF-ACC PPC know-NPST
'I know that Batu caught this thief.'

b. [Batu-yin ene χulaγaiči-yi bari-γsan]-Ø ni nada-du mede-
Batu-GEN this thief-ACC catch-PERF-NOM PPC me-DAT know-
gde-be.
PASS-PST
'That Batu caught this thief was known by me.'

In (48a), the matrix verb *mede* 'know' selects two arguments: the external argument is marked nominative and the internal argument, realized as a complement clause, is marked accusative. When the verb is passivized, (48b) is obtained. The complement clause does not bear accusative case but is marked nominative. Moreover, the PPC *ni* becomes obligatory in (48b) with the clausal subject, though it is optional in (48a) with the clausal object.

3.2.3 Copular clauses

The discussion in this subsection focuses on two copulas in CM, i.e., *bai* and *bol* (Sechenbaatar 2003; Janhunen 2012; Litip 2017). Let us first look at the usage of *bai*, which conveys static information, as illustrated in (49).

(49) Ende-xi ebesü uul ni maši iγču saχuliγ bai-ǰai.
here-INDIC grass once PPC very dense dense COP-PST.CON
'The grass here was once very dense.'

In addition, *bai* can be used in existential constructions (Janhunen 2012; Gao 2020), as shown in (50).

(50) Xi-güsitei ǎjil arbin bai-na.
do-worthwhile work lots.of be-NPST
'There are lots of work worth doing.'
(cited from Gao 2020: 99)

Moving on to *bol*, it can convey either static information, meaning *to be*, or dynamic information, meaning *to become*, as illustrated in (51a) and (51b), respectively.

(51) a. Ene-Ø minu degüü bol-una.
this-NOM my younger.brother COP-NPST
'This is my younger brother.'
b. Tana-Ø baγsi bol-ba.
Tana-NOM teacher become-PST
'Tana became a teacher.'

The copula verb *bol* in (51) takes nominal predicates, which are not case-marked.[4]

Similar to *bai*, *bol* can be used in existential constructions (Janhunen 2012; Gao 2020), as shown in (52).

[4] Another possibility would be that they are marked nominative with the zero nominative marker. The choice between the possibility in the text and this is immaterial to the discussion here, as what is important is that they are not marked with an overt case marker.

(52) Bi-Ø tan-tai yarilča-χu bol-una.
I-NOM 2SG.HON-COM discuss-NPST.NOML be-NPST
'There are discussions that I need to have with you.'
(cited from Gao 2020: 97)

Additionally, *bol* functions as a topic marker (Sechenbaatar 2003; Janhunen 2012), as demonstrated in (53) and (54).

(53) Ene bol nigen sain učir.
this TOP one good thing
'As for this, it is a good thing.'

(54) Bi bol nige suruγči.
I TOP one student
'As for me, I am a student.'

The function of *bol* as a topic marker will be further discussed in the subsection below.

3.2.4 The cleft construction

The focus of this subsection is the cleft construction in CM (Hashimoto 2006; Sakamoto 2012; Bao 2014; Sakamoto 2017). See (55) for the schematic representation of the cleft construction in CM.

(55) $[_{CP}$ …e_i…] PPC (TOP) XP_i-case/postposition copula

As discussed in the previous literature, a cleft construction contains a presuppositional clause, which is marked by a PPC and followed by the optional topic marker *bol*. The presuppositional clause precedes a pivot, which precedes a copula. The pivot is accompanied by case markers and postpositions.

Let us start our discussion with the example below.

(56) a. Batu-Ø tere baγsi-ača asaγulta-Ø asaγu-ba.
Batu-NOM that teacher-ABL question-ACC ask-PST
'Batu asked that teacher a question.'

b. [Batu-yin asaγulta-Ø asaγu-γsan] ni (bol) tere baγsi-ʔača
Batu-GEN question-ACC ask-PERF.ADN PPC TOP that teacher-ABL
bol-una.
COP-NPST
'It was that teacher that Batu asked a question.'

The sentence in (56a) is a typical declarative sentence, which contains an ablative-marked object and an accusative-marked object. The cleft sentence in (56b) is constructed by clefting the ablative-marked object in (56a). In (56b), the subject of the presuppositional clause is assigned genitive case. The pivot is marked ablative, which is followed by the copula *bol*.

Next, let us consider eight important points about the cleft construction in CM. First, there is variability in case markers and postpositions, as illustrated in (56-59).

(57) a. [Batu-yin ide-gsen] ni (bol) tere tomo boγursuγ-*i bol-una.
Batu-GEN eat-PERF.ADN PPC TOP that big cake-ACC COP-NPST
'It was that big cake that Batu ate.'

b. Batu-Ø tere tomo boγursuγ-i ide-be.
Batu-NOM that big cake-ACC eat-PST
'Batu ate that big cake.'

(58) [Batu-yin tere yabudal-i medegde-gsen] ni (bol) Sarana-?*du
Batu-GEN that thing-ACC inform-PERF.ADN PPC TOP Sarana-DAT
bol-una.
COP-NPST
'It was Sarana that Batu informed of that thing.'

(59) [Batu-yin čirmain temeče-ǰü bai-χu] ni (bol) tegün-ü
Batu-GEN diligently fight-ADVL AUX-NPST.ADN PPC TOP 3SG-GEN
xüü-yin-iyen tölüge bol-una.
son-GEN-REF.POSS POSTP COP-NPST
'It is for his son that Batu works hard.'

Concretely, in (57a), the focused element, *tere tomo boγursuγ* 'that big cake,' cannot be accompanied by the accusative case marker, unlike that in a typical transitive sentence, as in (57b).[5] The dative marker may not be allowed to accompany the non-*wh*-pivot, as shown in (58). However, the ablative marker as well as postpositions are allowed, as in (56) and (59),

[5] The observation that the accusative marker is not allowed to appear on pivots in cleft sentences may be related to the fact that the accusative case is a structural case in Mongolian (Guntsetseg 2012). When a structural case is adjacent to a copula in cleft constructions, the relevant constructions may be perceived as degraded. The similar observation is made in Japanese cleft sentences, as discussed in chapter 2 of this dissertation.

respectively.

Second, adjuncts can be pivots in cleft sentences in CM, as illustrated in (60) and (61).

(60) [Batu-yin γurban-debter nom-i ǰigele-gsen] ni
Batu-GEN three-CL book-ACC borrow-PERF.ADN PPC
(bol) nom-un sang-ʔača bol-una.
TOP book-GEN storeroom-ABL COP-NPST
'It was from a library that Batu borrowed three books.'

(61) [Batu-yin nom-un sang-ača γurban-debter nom-i
Batu-GEN book-GEN storeroom-ABL three-CL book-ACC
ǰigele-gsen] ni (bol) öčügedür-ʔtü bol-una.
borrow-PERF.ADN PPC TOP yesterday-DAT COP-NPST
'It was yesterday that Batu borrowed three books from a library.'

The pivots in (60) and (61) are locative and temporal adjuncts, respectively.

Third, the cleft construction in CM allows *wh*-phrases as focused elements. Consider the following examples:

(62) [Batu-yin ol-ǰu üǰe-gsen] ni xen-*i bol-χu bui?
Batu-GEN AUX-ADVL see-PERF.ADN PPC who-ACC COP-INF Q.PRT
'Who was it that Batu saw?'

(63) [Batu-yin tere yabudal-i medegde-gsen] ni xen-?dü bol-χu
Batu-GEN that thing-ACC inform-PERF.ADN PPC who-DAT COP-INF
bui?
Q.PRT
'Whom was it that Batu informed of that thing?'

(64) [Batu-yin asaγulta-Ø asaγu-γsan] ni ali baγsi-ača
Batu-GEN question-ACC ask-PERF.ADN PPC which teacher-ABL
bol-χu bui?
COP-INF Q.PRT
'Which teacher was it that Batu asked a question?'

(65) [Batu-yin čirmain temeče-jü bai-χu] ni xen-ü tölüge
Batu-GEN diligently work-ADVL AUX-NPST.ADN PPC who-GEN POSTP
bol-χu bui?
COP-INF Q.PRT
'For whom is it that Batu works hard?'

The cleft sentences in (62-65) are acceptable with *wh*-phrases being foci.[6] As in (57a), the accusative case marker cannot appear on the pivot in (62). Interestingly, the dative marker on the *wh*-pivot in (63) is more acceptable than that in (58) with a non-*wh*-pivot.

Fourth, the cleft construction in CM does not allow multiple non-*wh*-pivots, as exemplified in (66-68).

[6] The native speakers of CM I consulted prefer to omit the topic marker *bol* in the cleft construction, especially in cases where the pivots are *wh*-phrases.

(66) * [Batu-yin medegde-gsen] ni (bol) Sarana-du tere yabudal-i
Batu-GEN inform-PERF.ADN PPC TOP Sarana-DAT that thing-ACC
bol-una.
COP-NPST
'lit. It was Sarana of that thing that Batu informed.'

(67) ?* [Batu-yin asaγu-γsan] ni (bol) tere baγsi-ača tere
Batu-GEN ask-PERF.ADN PPC TOP this teacher-ABL this
asaγulta-yi bol-una.
question-ACC COP-NPST
'lit. It was this teacher this question that Batu asked.'

(68) ?* [Batu-yin tere nom-i xürge-gsen] ni (bol) Sarana-du
Batu-GEN that book-ACC give-PERF.ADN PPC TOP Sarana-DAT
öčügedür bol-una.
yesterday COP-NPST
'lit. It was to Sarana yesterday that Batu gave that book.'

The cleft sentences in (66-68), each of which contains two non-*wh*-pivots, are very degraded. Readers may question whether the unacceptability of (66-68) could be attributed to the presence of case markers like the accusative marker. As demonstrated in (57a) and (62), pivots in single cleft sentences in CM cannot be accompanied by the accusative marker. My research shows that the unacceptability of (66-68) is not linked to case markers. One explanation is that examples with case-marked *wh*-pivots, like (70-72), are acceptable.

Furthermore, let us look at an example containing two adverbial non-*wh*-pivots in (69). Though the cleft sentence in (69) is more acceptable than (66-68), it is not accepted by half of

the native speakers I consulted.

(69) ?? [Batu-yin γurban-debter nom-i ǰigele-gsen] ni (bol)
Batu-GEN three-CL book-ACC borrow-PERF.ADN PPC TOP
öčügedür nom-un sang-ača bol-una.
yesterday book-GEN storeroom-ABL COP-NPST
'lit. It was yesterday from a library that Batu borrowed three books.'

In a word, my study reveals that the cleft construction in CM does not permit the presence of multiple non-*wh*-pivots.

Fifth, the cleft construction in CM allows multiple *wh*-pivots, which is in direct contrast to the cases with non-*wh*-pivots. See the examples below.

(70) [Batu-yin γurban-debter nom-i ǰigele-gsen] ni xeǰiye
Batu-GEN three-CL book-ACC borrow-PERF.ADN PPC when
χamiγa-ača bol-χu bui?
where-ABL COP-INF Q.PRT
'lit. When from where was it that Batu borrowed three books?'

(71) [Batu-yin medegde-gsen] ni xen-dü yaγu-yi bol-χu bui?
Batu-GEN inform-PERF.ADN PPC who-DAT what-ACC COP-INF Q.PRT
'lit. Whom of what was it that Batu informed?'

(72) [Batu-yin asaγu-γsan] ni ali baγsi-ača yaγu-yi bol-χu bui?
Batu-GEN ask-PERF.ADN PPC which teacher-ABL what-ACC COP-INF Q.PRT
'lit. Which teacher what was it that Batu asked?'

The cleft sentences in (70-72), each of which includes two *wh*-pivots, are all acceptable. Since cases like (70-72) are allowed, the multiple cleft construction is allowed in CM. The multiple cleft sentences reveal an intriguing point; that is, the presence of the accusative marker is obligatory in the multiple cleft construction in CM, while it is not allowed to appear in the single cleft construction.

In the multiple cleft construction in CM, all of the *wh*-pivots must be accompanied by case markers. Otherwise, the relevant sentences are degraded, as illustrated in (73).

(73) a. [Batu-yin beleg-Ø ilege-gsen] ni χamiγa-ača xen-dü
Batu-GEN present-ACC send-PERF.ADN PPC where-ABL who-DAT
bol-χu bui?
COP-INF Q.PRT
'lit. From where to whom was it that Batu sent a present?'

b.* [Batu-yin beleg-Ø ilege-gsen] ni χamiγa-ača xen bol-χu bui?
Batu-GEN present-ACC send-PERF.ADN PPC where-ABL who COP-INF Q.PRT
'lit. From where to whom was it that Batu sent a present?'

c.* [Batu-yin beleg-Ø ilege-gsen] ni χamiγa xen-dü bol-χu bui?
Batu-GEN present-ACC send-PERF.ADN PPC where who-DAT COP-INF Q.PRT
'lit. From where to whom was it that Batu sent a present?'

The multiple cleft sentence in (73b), where the second pivot is not marked with a case marker, is degraded. That in (73c), where the first pivot is not case-marked, is not acceptable. The only natural version is (73a) with both pivots accompanied by case markers.

Sixth, more than two focused elements are allowed to appear in the multiple cleft construction in CM.

(74) a.? [Xürge-gsen] ni xen ni xen-dü yaγu-yi bol-χu bui?
give-PERF.ADN PPC who PPC who-DAT who-ACC COP-INF Q.PRT
'lit. Who whom what was it that gave?'

b.? [Beleg-Ø ilege-gsen] ni xen ni χamiγa-ača xen-dü
present-ACC send-PERF.ADN PPC who PPC where-ABL who-DAT
bol-χu bui?
COP-INF Q.PRT
'lit. Who from where to whom was it that sent a present?'

The multiple cleft sentences in (74), each of which has three foci, are acceptable in colloquial speech. Note that the first focused element, *xen* 'who,' in (74a-b) is accompanied by the PPC with the partitive function. For example, in (74a), the PPC is used to express the following meaning: *Among the people in the discourse, who was the one that performed the action of giving?*

Seventh, the multiple cleft construction adheres to the clause-mate condition. See (75) below.

(75) a. Tana-Ø Mergen-dü [Batu-Ø nige γaǰar-ača nige xümün-dü
Tana-NOM Mergen-DAT Batu-NOM one place-ABL one person-DAT
beleg-Ø ilege-be geǰü] xele-be.
present-ACC send-PST COMP say-PST
'Tana told Mergen that Batu sent a present to a person from a place.'

b. Multiple cleft sentence

[Tana-yin Mergen-dü [Batu-Ø e_i e_j beleg-Ø ilege-be
Tana-GEN Mergen-DAT Batu-NOM present-ACC send-PST
geǰü] xele-gsen] ni χamiγa-ača$_i$ xen-dü$_j$ bol-χu bui?
COMP say-PERF.ADN PPC where-ABL who-DAT COP-INF Q.PRT
'lit. From where to whom was it that Tana told Mergen that Batu sent a present?'

(75a) contains a complement clause, in which two elements, *nige γaǰar-ača* 'one place-ABL' and *nige xümün-dü* 'one person-DAT,' are questioned and clefted, as shown in (75b). The multiple cleft sentence in (75b) is acceptable, where the two pivots are originated from the same complement clause.

Next, let us examine what happens when the pivots originate from different clauses. Consider (76):

(76) a. Tana-Ø nige xümün-dü [Batu-Ø nige γaǰar-ača
Tana-NOM one person-DAT Batu-NOM one place-ABL
nige nom-Ø ǰigele-be geǰü] xele-be.
one book-ACC borrow-PST COMP say-PST
'Tana told one person that Batu borrowed a book from a place.'

b. Multiple cleft sentence

* [Tana-yin e_i [Batu-Ø e_j nige nom-Ø ǰigele-be geǰü]
Tana-GEN Batu-NOM one book-ACC borrow-PST COMP
xele-gsen] ni xen-dü$_i$ χamiγa-ača$_j$ bol-χu bui?
say-PERF.ADN PPC who-DAT where-ABL COP-INF Q.PRT

‘lit. Whom from where was it that Tana told that Batu borrowed a book?’

(76a) is a complex sentence containing a complement clause. In (76a), the object *nige xümün-dü* ‘one person-DAT’ from the main clause and *nige γaǰar-ača* ‘one place-ABL’ from the subordinate clause are questioned and clefted, as demonstrated in (76b). The multiple cleft sentence in (76b) is not acceptable because the two foci are not clause-mates. The comparison between (75b) and (76b) demonstrates that the multiple cleft construction in CM adheres to the clause-mate condition.

Eighth, the cleft construction in CM can appear in embedded clauses, as shown in (77) and (78).

(77) Bi-Ø [[Batu-yin asaγulta-Ø asaγu-γsan] ni ali
1SG-NOM Batu-GEN question-ACC ask-PERF.ADN PPC which
baγsi-ača bol-χu]-yi (ni) γaiχa-ǰu bai-na.
teacher-ABL COP-INF-ACC PPC wonder-ADVL AUX-NPST
‘I wonder which teacher it was that Batu asked a question.’

(78) Bi-Ø [[Batu-yin tere yabudal-i medegde-gsen] ni xen-dü
1SG-NOM Batu-GEN that thing-ACC inform-PERF.ADN PPC who-DAT
xeǰiye bol-χu]-yi (ni) mede-ye geǰü sana-ǰu bai-na.
when COP-INF-ACC PPC know-IMP that hope-ADVL AUX-NPST
‘lit. I hope to know whom when it was that Batu informed of that thing.’

The sentence in (77) contains a single cleft sentence, and that in (78) contains a multiple cleft sentence, both of which are acceptable.

This subsection has detailed the cleft construction in CM and its properties. Single cleft sentences allow both non-*wh*-pivots and *wh*-pivots. As for the case markers on the pivots, there is variability. That is, the accusative case marker is not allowed; the dative marker is somewhat restricted; the ablative marker is allowed; postpositions are allowed. In addition, the multiple cleft construction is allowed in the language. Interestingly, the multiple cleft construction only allows *wh*-pivots, all of which must be accompanied by case markers.

3.2.5 The pseudo-cleft construction

This subsection considers the pseudo-cleft construction and its properties in CM. See (79) for the schematic representation of the pseudo-cleft construction in CM.

(79) $[_{CP}$ …e_i…] PPC (TOP) XP_i copula

The pseudo-cleft construction consists of a free relative clause, which expresses the presupposition, a nominal complement, which serves as the pivot, and a copula. The free relative clause, indicated with brackets in (79), functions as the clausal subject, which is marked by a PPC and followed by the optional topic marker *bol*. The focused element is the complement of the copula and hence is not case-marked.

Let us start our discussion with the example in (80).

(80) a. Batu-Ø Sarana-du χairatai.
Batu-NOM Sarana-DAT fond
'Batu is fond of Sarana.'

b.? [Batu-yin xairatai] ni (bol) Sarana bol-una.

Batu-GEN fond PPC TOP Sarana COP-NPST

'Who Batu is fond of is Sarana.'

c. [Batu-yin xairatai xümün] ni (bol) Sarana bol-una.

Batu-GEN fond person PPC TOP Sarana COP-NPST

'The person that Batu is fond of is Sarana.'

(80a) is a typical declarative sentence, in which the object *Sarana* is assigned dative case. Based on (80a), a pseudo-cleft sentence is constructed, as in (80b). In (80b), the pivot is the complement of the copula *bol*. Furthermore, an NP, *xümün* 'person,' is allowed to appear in the presuppositional clause, as shown in (80c). In pseudo-cleft sentences in CM, NPs like *place, time, thing*, etc. can optionally appear, as exemplified in (81-82).

(81) [Batu-yin nom-un sang-ača γurban-debter nom-i

Batu-GEN book-GEN storeroom-ABL three-CL book-ACC

ǰigele-gsen (čag)] ni (bol) öčügedür bol-una.

borrow-PERF.ADN time PPC TOP yesterday COP-NPST

'When Batu borrowed three books from a library was yesterday.'

(82) [Batu-yin γurban-debter nom-i ǰigele-gsen (γaǰar)]

Batu-GEN three-CL book-ACC borrow-PERF.ADN place

ni (bol) nom-un sang bol-una.

PPC TOP book-GEN storeroom COP-NPST

'Where Batu borrowed three books was the library.'

As can be seen from (80-82), pivots in pseudo-cleft sentences can be nominal phrases or adjunct phrases.

In addition to non-*wh*-phrases, *wh*-phrases can be pivots in pseudo-cleft sentences, as illustrated in (83) and (84).

(83) [Batu-yin asaγulta-Ø asaγu-γsan (xümün)] ni ali baγsi
Batu-GEN question-ACC ask-PERF.ADN person PPC which teacher
bol-χu bui?
COP-INF Q.PRT
'Which teacher was the person that Batu asked a question to?'

(84) [Batu-yin γurban-debter nom-i ǰigele-gsen (γaǰar)]
Batu-GEN three-CL book-ACC borrow-PERF.ADN place
ni χamiγa bol-χu bui?
PPC where COP-INF Q.PRT
'Where was the place that Batu borrowed three books?'

The pivot in (83) is an NP *wh*-phrase, and the pivot in (84) is an adjunct *wh*-phrase.[7]

Pseudo-cleft sentences in CM can be embedded. Let us embed (83) to obtain (85).

[7] The native speakers of CM I consulted prefer to omit the topic marker *bol* in cases of pseudo-cleft sentences with *wh*-pivots.

(85) Bi-Ø [[Batu-yin asaγulta-Ø asaγu-γsan (xümün)] ni
1SG-NOM Batu-GEN question-ACC ask-PERF.ADN person PPC
ali baγsi bol-χu]-yi (ni) γaiχa-ǰu bai-na.
which teacher COP-INF-ACC PPC wonder-ADVL COP-NPST
'I wonder which teacher the person that Batu asked a question to was.'

The embedded pseudo-cleft sentence in (85) is acceptable.

Lastly, the pseudo-cleft construction in CM does not allow multiple pivots, irrespective of the nature of the pivots, as illustrated in (86-88).

(86) * [Batu-yin medegde-gsen] ni (bol) Sarana tere yabudal
Batu-GEN inform-PERF.ADN PPC TOP Sarana that thing
bol-una.
COP-NPST
'lit. Who Batu informed was Sarana that thing.'

(87) * [Batu-yin medegde-gsen] ni xen yaγu bol-χu bui?
Batu-GEN inform-PERF.ADN PPC who what COP-INF Q.PRT
'lit. Who what was the person Batu informed?'

(88) * [Batu-yin tere nom-i xürge-gsen] ni xen xeǰiye
Batu-GEN this book-ACC give-PERF.ADN PPC who when
bol-χu bui?
COP-INF Q.PRT
'lit. Who when was the person Batu gave this book to?'

The multiple pseudo-cleft sentence in (86), which contains two non-*wh*-pivots, is completely degraded. Those in (87-88), each of which includes two *wh*-pivots, are also completely degraded.

This subsection has discussed the pseudo-cleft construction in CM. Before leaving this section, I summarize the distinctions between the cleft construction and the pseudo-cleft construction in CM. Firstly, the pivots in the cleft construction are case-marked, while the pivots in the pseudo-cleft construction are not. Additionally, pseudo-cleft sentences permit the presence of NPs such as *person*, *thing*, *time*, and *place* in their presuppositional clauses. Conversely, these NPs are not permitted in the presuppositional clauses of cleft sentences. Furthermore, the single pseudo-cleft construction is allowed and can be embedded, while the multiple pseudo-cleft construction is not allowed. On the other hand, both single cleft construction and multiple cleft construction are allowed.

3.2.6 *Wh*-questions

As discussed in section 3.1, CM is a *wh*-in-situ language. Moreover, *wh*-questions end with the question particle *bui*, which is obligatory in the formal register, as exemplified in (89).

(89)	Batu-Ø	xen-i	ol-ǰu	üǰe-gsen	bui?
	Batu-NOM	who-ACC	AUX-ADVL	see-PERF	Q.PRT
	‘Who did Batu see?’				

Wh-questions can appear in embedded clauses, as illustrated in (90-91).

(90) Bi-Ø [ene xeüxen-ü yaγu-Ø uuγu-γsan (*bui)]-i
1SG-NOM this girl-GEN what-ACC drink-PERF Q.PRT-ACC
(ni) mede-be.
PPC know-PST
'I knew what this girl drank.'

(91) Bi-Ø [xen-ü sü-Ø uuγu-γsan (*bui)]-i (ni) mede-be.
1SG-NOM who-GEN milk-ACC drink-PERF Q.PRT-ACC PPC know-PST
'I knew who drank milk.'

It is worth noting that the question particle *bui* is not allowed to appear in embedded *wh*-questions in CM (Maki, Bao, and Hasebe 2015).

In addition to single *wh*-questions shown in (89-91), CM allows multiple *wh*-questions. Consider the data below:

(92) Xen-Ø yamar ǰimis-Ø ab-uγsan bui?
who-NOM what.kind fruit-ACC buy-PERF Q.PRT
'Who bought what kind of fruit?'

(93) Batu-Ø χamiγa-ača yamar nom-Ø ǰigele-gsen bui?
Batu-NOM where-ABL what.kind book-ACC borrow-PERF Q.PRT
'What kind of book did Batu borrow from where?'

The examples in (92) and (93) each contain two *wh*-phrases, which are completely acceptable. Let us note that multiple *wh*-questions in CM allow single-pair and pair-list interpretation. For instance, the multiple *wh*-question in (92) can be answered as follows:

(94) a. Single-pair answer

Mergen-Ø almurad-Ø ab-uba.

Mergen-NOM apple-ACC buy-PST

‘Mergen bought apples.’

b. Pair-list answer

Mergen-Ø almurad-Ø ab-uba. Čimeg-Ø banana-Ø

Mergen-NOM apple-ACC buy-PST Čimeg-NOM banana-ACC

ab-uba. Amur-Ø ǰürǰi-Ø ab-uba.

buy-PST Amur-NOM orange-ACC buy-PST

‘Mergen bought apples. Čimeg bought bananas. Amur bought oranges.’

Similar to single *wh*-questions, multiple *wh*-questions can appear in embedded clauses, as illustrated in (95).

(95) Bi-Ø [Batu-yin xen-dü yaγu-Ø öggü-gsen (*bui)]-i (ni)

I-NOM Batu-GEN who-DAT what-ACC give-PERF Q.PRT-ACC PPC

mede-xü ügei.

know-INF not

‘I don’t know what Batu gave to whom.’

The embedded clause, indicated with brackets, is a multiple *wh*-question, where the question particle *bui* is not allowed to appear.

3.3 Reduced embedded single *wh*-questions

This section details reduced embedded single *wh*-questions and their properties in CM and argues that they can be analyzed in terms of the pseudo-sluicing analysis, the reduced pseudo-cleft analysis, or the reduced cleft analysis.

3.3.1 Basic phenomena

This subsection introduces reduced embedded single *wh*-questions in CM. First, NP *wh*-remnants are allowed. Consider the following data:

(96) a. Nige xümün-Ø Tana-yi ol-ǰu üǰe-be,
one person-NOM Tana-ACC AUX-ADVL see-PST
'A person saw Tana,'

b. getele bi-Ø [xen-Ø Tana-yi ol-ǰu üǰe-gsen]-i (ni)
but I-NOM who-NOM Tana-ACC AUX-ADVL see-PERF-ACC PPC
mede-xü ügei.
know-INF not
'but I don't know who saw Tana.'

c. getele bi-Ø [xen]-i ni mede-xü ügei.
but I-NOM who-ACC PPC know-INF not
'but I don't know who.'

The sentence in (96a) is intended to antecede the full-fledged indirect question in (96b) and its

reduced counterpart in (96c). In (96a), the subject is an indefinite phrase marked nominative, which serves as the correlate of the *wh*-phrases in (96b-c). The full-fledged *wh*-question in (96b) is assigned accusative case by the matrix predicate *mede* 'know' and is optionally followed by the PPC. The reduced question in (96c) only contains a *wh*-phrase and is followed by the accusative case marker and the PPC.[8] The accusative marker is assigned to the reduced clause by the matrix predicate *know* (Bai and Takahashi 2023a).

Reduced embedded questions in CM also allow adjunct *wh*-phrases as remnants, as shown in (97).

(97) a. Bi-Ø [Batu-Ø öčügedür nige γaǰar χural xi-gsen]-i
I-NOM Batu-NOM yesterday one place meeting do-PERF-ACC
(ni) sonus-čai,
PPC hear-PST.CON
'I heard that Batu had a meeting at some place yesterday,'

b. getele bi-Ø [Batu-Ø öčügedür χamiγa χural xi-gsen]-i
but I-NOM Batu-NOM yesterday where meeting do-PERF-ACC
(ni) mede-xü ügei.
PPC know-INF not

[8] Note that the PPC following a full-fledged embedded question like (96b) is optional, as discussed in subsection 3.2.1. Readers may wonder about the optionality or obligatoriness of the PPC in reduced questions like (96c) in CM. The native speakers I consulted had divergent opinions on the presence of the PPC in reduced questions. Half of the speakers said that it is optional, and the other half said that it cannot be omitted. I will ultimately argue that reduced questions have clausal structure, and hence I expect that the PPC should be optional in (96c) just as in (96b), which is borne out by the judgment of half of the informants. I have no clear idea about the reason for this variation among speakers and thus have to leave it to my future research. In this chapter, I indicate the PPC as obligatory in cases of reduced questions just for the sake of completeness.

‘but I don’t know where Batu had a meeting yesterday.’

c. getele bi-Ø [χamiγa]-yi ni mede-xü ügei.
but I-NOM where-ACC PPC know-INF not
‘but I don’t know where.’

(97a) serves as the antecedent for the full-fledged *wh*-question in (97b) and the reduced question in (97c). The reduced question, which consists of an adjunct *wh*-remnant *χamiγa* ‘where,’ is acceptable.

In addition to *wh*-phrases, non-*wh*-phrases are allowed to appear as remnants in truncated embedded clauses in CM, as illustrated in (98).

(98) a. Batu-Ø [Mergen-i očügedür Xöxeχota-du siraγsan χonin
Batu-NOM Mergen-ACC yesterday Hohhot-DAT roasted sheep
miχa-Ø ide-be geǰü] üǰe-ǰü bai-na,
meat-ACC eat-PST COMP think-ADVL AUX-NPST
‘Batu thinks that Mergen ate roasted lamb in Hohhot yesterday,’

b. gebečü bi-Ø [siraγsan üxer-ün miχa geǰü] üǰe-ǰü bai-na.
but I-NOM roasted cow-GEN meat COMP think-ADVL AUX-NPST
‘lit. but I think that roasted beef.’

c. gebečü bi-Ø [urǰidur geǰü] üǰe-ǰü bai-na.
but I-NOM the.day.before.yesterday COMP think-ADVL AUX-NPST
‘lit. but I think that the day before yesterday.’

The sentence in (98a) is the antecedent of the truncated clauses in (98b) and (98c), each

containing a non-*wh*-remnant. The reduced clause in (98b) with the nominal remnant and that in (98c) with the adjunct remnant are both acceptable.[9]

3.3.2 Properties

This subsection details the properties of reduced embedded single *wh*-questions in CM.

3.3.2.1 The appearance of the copula

Bai and Takahashi (2023a) observe that reduced embedded questions in CM allow the appearance of the copula *bol*. Consider the following data:

(99) a. Mergen-Ø yamar nigen xümün-i toγu-na.
Mergen-NOM some one person-ACC like-NPST
'Mergen likes someone.'

b. Bi-Ø [tegün-ü xen-i toγu-χu]-yi (ni) mede-be.
I-NOM he-GEN who-ACC like-INF-ACC PPC know-PST
'I knew who he liked.'

c. Bi-Ø [xen]-i ni mede-be.
I-NOM who-ACC PPC know-PST

[9] Note that the matrix predicate *üǰe* 'think' in (98) takes a finite complement clause, which is not case-marked. The matrix predicates in examples such as (96) and (103) take non-finite complement clauses, which are case-marked. Please refer to section 3.2.1 for detailed discussions.

‘I knew who.’

d. Bi-Ø [xen bol-χu]-yi ni mede-be.
I-NOM who COP-INF-ACC PPC know-PST
‘I knew who.’

The sentence in (99a) is intended to antecede each of (99b-d). (99b) contains a full-fledged indirect *wh*-question, which is marked accusative by the matrix predicate *mede* ‘know.’ Reduction of the embedded question in (99b) yields (99c), containing the remnant *wh*-phrase. In addition, the *wh*-remnant can be followed by the copula *bol*, as shown in (99d).

Let us look at another example.

(100) a. Batu-Ø marγasi nige γaǰar xödelgegen-dü orulča-na.
Batu-NOM tomorrow one place event-DAT attend-NPST
‘Batu will attend an event at a place tomorrow.’

b. Bi-Ø [χamiγa]-yi ni mede-ne.
I-NOM where-ACC PPC know-NPST
‘I know where.’

c. Bi-Ø [χamiγa bol-χu]-yi ni mede-ne.
I-NOM where COP-INF-ACC PPC know-NPST
‘I know where.’

The sentence in (100a) is the antecedent of the reduced question in (100b) with an adjunct *wh*-remnant. In the reduced question, the *wh*-remnant can be followed by the copula, as shown in (100c).

3.3.2.2 Non-linguistic antecedents

Bai and Takahashi (2023a) observe that reduced questions in CM can be used felicitously without linguistic antecedents (see Gribanova and Manetta 2016 for similar discussions on Uzbek). Consider the following examples (the context for (101) is modeled after Gribanova and Manetta 2016):

(101) Context: Tana and the speaker are shopping in a boutique. The speaker picks up a mysterious product and says:

Bi-Ø [yaγu (bol-χu)]-yi ni mede-xü ügei.

I-NOM what COP-INF-ACC PPC know-INF not

'I don't know what.'

(102) Context: The speaker hears someone screaming and says:

Burχan a, bi-Ø [xen (bol-χu)]-yi ni mede-ye geǰü

god PRT I-NOM who COP-INF-ACC PPC know-IMP that

sana-ǰu bai-na.

hope-ADVL AUX-NPST

'Oh my god, I hope to know who.'

Both (101) and (102) contain utterances with reduced indirect questions. Note that they are perfectly felicitous with the contexts given, which are not expressed linguistically. As observed by Hankamer and Sag (1976), ellipsis requires verbally expressed antecedents, while

pronominal expressions can be used felicitously without such antecedents. The observation that reduced questions in CM do not require linguistic antecedents indicates that they may not involve ellipsis but pronominal subjects.

3.3.2.3 The island-insensitivity effect

As discussed in section 3.2.1, relative clauses and adjunct clauses constitute islands for movement in CM (see also Aravind 2021 and Gong 2022 for related observations). Now let us examine whether reduced questions in CM are sensitive to island effects. First, let us consider cases involving the relative clause island.

(103) a. Mergen-Ø [Tana-du yaɣuma-Ø xürge-gsen] xümün-i
Mergen-NOM Tana-DAT thing-ACC give-PERF.ADN person-ACC
ol-ǰu üǰe-be.
AUX-ADVL see-PST
'Mergen saw the person who gave Tana a thing.'

b. Bi-Ø [yaɣu (bol-χu)]-yi ni ɣaiχa-ǰu bai-na.
I-NOM what COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder what.'

The sentence in (103a), which contains a relative clause, antecedes the reduced question in (103b). The correlate of the *wh*-remnant, i.e., *yaɣuma* 'thing,' is inside the relative clause. Nevertheless, the reduced question is acceptable.

Let us look at another example.

(104) a. Tede-Ø [nige Balkan xele-Ø xele-deg] xümün-i
they-NOM one Balkan language-ACC speak-HBT person-ACC
xölüsüle-be,
hire-PST
'They hired a person who speaks a Balkan language,'

b. bi-Ø [yamar Balkan xele (bol-χu)]-yi ni γaiχa-ǰu
I-NOM which Balkan language COP-INF-ACC PPC wonder-ADVL
bai-na.
AUX-NPST
'I wonder which Balkan language.'

The sentence in (104a) is intended to antecede the reduced question in (104b). The correlate of the *wh*-remnant is inside the relative clause. The reduced question is again acceptable. The examples (103-104) show that reduced questions in CM are not sensitive to the relative clause island effect.

Then, let us examine the adjunct island effect in reduced questions.

(105) a. Tana-Ø [Batu-Ø nige xümün-i čoxi-γsan (učir)-ača] uxila-ba,
Tana-NOM Batu-NOM one person-ACC hit-PERF reason-ABL cry-PST
'Tana cried because Batu hit a person,'

b. bi-Ø [xen (bol-χu)]-yi ni γaiχa-ǰu bai-na.
I-NOM who COP-INF-ACC PPC wonder-ADVL AUX-NPST

‘I wonder who.’

(106) a. Batu-Ø [Suruna-Ø nige xümün-eče nige asaγulta-Ø
Batu-NOM Suruna-NOM one person-ABL one question-ACC
asaγu-γsan (učir)-ača] bayarla-ba,
ask-PERF reason-ABL please-PST
‘Batu was pleased because Suruna asked a person a question,’

b. gebečü bi-Ø [xen (bol-χu)]-yi ni mede-xü ügei.
but I-NOM who COP-INF-ACC PPC know-INF not
‘but I don’t know who.’

The sentences in (105b) and (106b) take (105a) and (106a), respectively, as their antecedents and contain reduced indirect questions. Note that the correlates of the *wh*-phrases occur inside the adjunct clauses. The reduced questions are acceptable in the contexts given, demonstrating that reduced questions in CM are not sensitive to the adjunct island effect.

3.3.2.4 On the case-matching effect

The cases of reduced embedded questions discussed so far all involve non-case-marked remnants. Now let us examine cases of truncated questions where the remnants are accompanied by some case markers and postpositions. First, consider the example (107) below, where two speakers, A and B, engage in a conversation.

(107) A: Bide-Ø man-u anggi-yin nige suruγči-yi urulduγan-du
we-NOM 2PL-GEN class-GEN one student-ACC competition-DAT
orulča-γul-χu-bar tomila-ǰu bol-una.
participate-CAUS-INF-INSTR assign-ADVL AUX-NPST
'We can assign a student in our class to participate in the competition.'

B: Bi-Ø [biden-ü xen-i urulduγan-du orulča-γul-χu-bar
I-NOM 2PL-GEN who-ACC competition-DAT participate-CAUS-INF-INSTR
tomila-ǰu bol-χu]-du ni sanal ügei.
assign-ADVL AUX-INF-ACC PPC opinion not
'I have no opinion on who we can assign to participate in the competition.'

B':* Bi-Ø [xen-i bol-χu]-du ni sanal ügei.
I-NOM who-ACC COP-INF-DAT PPC opinion not
'I have no opinion on who.'

B'': Bi-Ø [xen bol-χu]-du ni sanal ügei.
I-NOM who COP-INF-DAT PPC opinion not
'I have no opinion on who.'

Here, the speaker A's utterance is intended to antecede the speaker B's utterances. (107B) contains a full-fledged indirect question, assigned dative case by the predicate, *sanal ügei* 'have no opinion.' Reduction of (107B) yields the reduced questions in (107B') and (107B''). The correlate of the *wh*-remnants, i.e., *nige suruγči* 'one student' in (107A), is assigned accusative case. The *wh*-phrase in (107B), *xen-i* 'who-ACC,' is assigned accusative case similarly. The remnant *wh*-phrase in the reduced question, however, cannot be accompanied by the accusative

marker, as shown by the unacceptability of (107B'). When the accusative marker does not appear on the remnant, the reduced question is acceptable, as shown in (107B'').

Then, let us examine whether a dative-marked remnant is allowed in a reduced question. See the example below.

(108) 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]-i
but I-NOM he-GEN who-DAT this book-ACC give-PERF-ACC
(ni) mede-xü ügei.
PPC know-INF not
'but I don't know to whom he gave this book.'

c.? gebečü bi-Ø [xen-dü]-yi ni mede-xü ügei.
but I-NOM who-DAT-ACC PPC know-INF not
'but I don't know to whom.'

d. 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.'

e. gebečü bi-Ø [xen bol-χu]-yi ni mede-xü ügei.
but I-NOM who COP-INF-ACC PPC know-INF not
'but I don't know who.'

The sentence in (108a) serves to antecede the full-fledged embedded question in (108b) and the

reduced questions in (108c-e). The *wh*-phrase *xen* 'who' in (108b), which corresponds to the indirect object in (108a), is marked dative. In the reduced question in (108c), the *wh*-remnant is accompanied by the dative case marker. When the dative-marked remnant is followed by the copula *bol,* as shown in (108d), the reduced question is more acceptable. In addition, the dative marker is optional, given that the reduced question in (108e) is acceptable.

Next, let us consider whether ablative-marked remnants are allowed.

(109) a. Batu-Ø öčügedür nige baγsi-ača asaγulta-Ø asaγu-ba.
Batu-NOM yesterday one teacher-ABL question-ACC ask-PST
'Batu asked a teacher a question yesterday.'

b. Bi-Ø [Batu-yin öčügedür ali baγsi-ača asaγulta-Ø
I-NOM Batu-GEN yesterday which teacher-ABL question-ACC
asaγu-γsan]-i (ni) mede-xü ügei.
ask-PERF-ACC PPC know-INF not
'I don't know which teacher Batu asked a question yesterday.'

c.? Bi-Ø [ali baγsi-ača]-yi ni mede-xü ügei.
I-NOM which teacher-ABL-ACC PPC know-INF not
'I don't know which teacher.'

d. Bi-Ø [ali baγsi-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.'

e. Bi-Ø [ali baγsi bol-χu]-yi ni mede-xü ügei.
I-NOM which teacher COP-INF-ACC PPC know-INF not
'I don't know which teacher.'

The full-fledged embedded question in (109b) and the reduced questions in (109c-e) take the sentence in (109a) as their antecedent. The reduced question in (109c) consists of an ablative-marked *wh*-phrase. That in (109d) is more acceptable with the ablative-marked remnant *wh*-phrase being accompanied by the copula. Additionally, the ablative marker is optional, as shown in (109e).

Lastly, remnant *wh*-phrases can be accompanied by postpositions. See the example (110) below.

(110) a. Batu-Ø nige xümün-ü tölüge čirmain temeče-deg,
Batu-NOM one person-GEN POSTP diligently work-HBT
'Batu works hard for someone,'

b. bi-Ø [xen-ü tölüge bol-χu]-yi ni mede-ye geǰü sana-ǰu bai-na.
I-NOM who-GEN POSTP COP-INF-ACC PPC know-IMP that hope-ADVL AUX-NPST
'I want to know for whom.'

c. bi-Ø [xen bol-χu]-yi ni mede-ye geǰü sana-ǰu bai-na.
I-NOM who COP-INF-ACC PPC know-IMP that hope-ADVL AUX-NPST
'I want to know who.'

The sentence in (110a) antecedes the reduced questions in (110b-c). The correlate of the remnant is followed by the postposition *tölüge*. The remnant is also followed by *tölüge*, as shown in (110b). Further, the postposition can be omitted, as in (110c).

Let us consider another example involving a postposition.

(111) a. Mergen-Ø urǰidur nige xeüxen-tei ǰoγuγda-ba,
Mergen-NOM the.day.before.yesterday one girl-COM.POSTP chat-PST
'Mergen chatted with a girl the day before yesterday,'

b. bi-Ø [xen-tei bol-χu]-yi ni γaiχa-ǰu bai-na.
I-NOM who-COM.POSTP COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder with whom.'

c. bi-Ø [xen bol-χu]-yi ni γaiχa-ǰu bai-na.
I-NOM who COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder who.'

The sentence in (111a) is intended to antecede the reduced questions in (111b-c). The correlate in (111a), i.e., *nige xeüxen* 'one girl,' is followed by the comitative postposition. Correspondingly, the remnant *wh*-phrase is accompanied by the postposition, as illustrated in (111b). In addition, the postposition can be omitted, as in (111c).

In summary, remnant phrases in reduced embedded questions in CM can be accompanied by postpositions and case markers other than the accusative marker. Reduced questions in CM exhibit the case-matching effect.

3.3.2.5 Sloppy identity

The previous literature (e.g., Ross 1969; Takahashi 1994; Merchant 2001; Liu, Hyams, and

Mateu 2022) considers whether cases of what seems to involve sluicing permit sloppy interpretation. According to my study, sloppy interpretation is allowed in reduced embedded questions in CM. Let us start our discussion with the English example below.

(112) I know how to say I'm sorry, and Bill knows how, too.
(cited from Ross 1969: 274)

The second clause in (112) contains a sluiced clause, which is anteceded by the first clause in (112). The sluiced clause has two interpretations. One is the strict interpretation, as in (113a). The other is the sloppy interpretation, as in (113b) (e.g., Ross 1969; Takahashi 1994).

(113) a. The strict interpretation
Bill knows how to say I'm sorry.
b. The sloppy interpretation
Bill knows how to say he's sorry.
(cited from Ross 1969: 274)

Now let us look at an example from CM.

(114) a. Batu-Ø [öber-tegen yaγun-du oγčura-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 [yaγun-du bol-χu]-yi ni mede-ne.
but Tana-NOM what-DAT COP-INF-ACC PPC know-NPST
'but Tana knows why.'

The reduced question in (114b) is anteceded by (114a).[10] The reduced question allows the strict interpretation that *Tana knows why Batu was fired*. Furthermore, it permits the sloppy reading that *Tana knows why Tana herself was fired*.

Let us look at another set of data.

(115) a. Batu-Ø [öber-ün abu-ban yaγun-u tölüge Begeǰing-dü
Batu-NOM self-GEN father-REF.POSS what-GEN POSTP Beijing-DAT
tomila-γda-γsan]-i (ni) mede-xü ügei,
dispatch-PASS-PERF-ACC PPC know-INF not
'lit. Batu doesn't know for what self's father was dispatched to Beijing,'

b. getele Tana-Ø [yaγun-u tölüge bol-χu]-yi ni mede-ne.
but Tana-NOM what-GEN POSTP COP-INF-ACC PPC know-NPST
'but Tana knows for what.'

The sentence in (115a) is the antecedent of the truncated embedded question in (115b). The reduced question permits not only the strict reading that *Tana knows for what Batu's father was dispatched to Beijing* but also the sloppy reading that *Tana knows for what Tana's father was dispatched to Beijing*.

[10] In Mongolian, the interrogative pronoun *why* is formed by combining the interrogative pronoun *yaγu* 'what' with the dative case maker (Janhunen 2012).

3.3.3 Analyses

This subsection details the theoretical analyses explaining reduced embedded single *wh*-questions in CM. The reduced questions can be derived from pseudo-sluiced clauses, pseudo-cleft sentences, or cleft sentences. Cases of reduced questions with non-case-marked remnants can be explained by the pseudo-sluicing analysis or the reduced pseudo-cleft analysis. Further, cases with case-marked remnant phrases can be accounted for by the reduced cleft analysis.

3.3.3.1 The pseudo-sluicing analysis

According to Bai and Takahashi (2023a), reduced embedded questions with non-case-marked remnants can be accounted for by the pseudo-sluicing analysis. Let us start our discussion with the example (116) below.

(116) a. Mergen-Ø yamar nigen xümün-i toγu-na.
Mergen-NOM some one person-ACC like-NPST
'Mergen likes someone.'

b. Bi-Ø [xen (bol-χu)]-yi ni mede-be.
I-NOM who COP-INF-ACC PPC know-PST
'I knew who.'

The reduced embedded question in (116b), which is anteceded by (116a), consists of the *wh*-

phrase and the optional copula.[11] The reduced question is assigned accusative case by the matrix predicate, *mede* 'know,' and followed by the PPC.

In line with the pseudo-sluicing analysis, the embedded clause in (116b) should be able to be analyzed as follows:

(117) a. [*pro* xen bol-χu]-yi
she who COP-INF-ACC
'who she is'

The pseudo-sluiced structure in (117) contains a null pronoun, which should be allowed since CM is a *pro*-drop language (Gao 2014), as discussed in section 3.1 of this chapter. The *wh*-phrase is the complement of the copula and hence is not assigned case.

As predicted by the pseudo-sluicing analysis, null pronominal subjects in reduced questions in CM should be able to alternate with overt pronominal subjects. This prediction is borne out in the following data:

(118) a. Batu-Ø nige xümün-i sigümǰile-be.
Batu-NOM one person-ACC reprimand-PST
'Batu reprimanded a person.'

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[11] Copula-drop is independently observed in CM (e.g., Bai and Takahashi 2023a), as illustrated in (i).

(i) Tana-Ø [Batu-yi abiyastan (bol-una) geǰü] üje-xü ügei.
Tana-NOM Batu-ACC genius COP-NPST COMP think-INF not
'Tana doesn't think that Batu is a genius.'

In (i), the presence of the copula is optional.

b. Bi-Ø [xen (bolu-γsan)]-i ni mede-ye geǰü sana-ǰu
I-NOM who COP-PERF-ACC PPC know-IMP that hope-ADVL
bai-na.
AUX-NPST
'I hope to know who.'

c. Bi-Ø [*pro* xen (bolu-γsan)]-i ni mede-ye geǰü
I-NOM he who COP-PERF-ACC PPC know-IMP that
sana-ǰu bai-na
hope-ADVL AUX-NPST
'I hope to know who (he) was'

d. Bi-Ø [tere ni xen (bolu-γsan)]-i (ni) mede-ye geǰü
I-NOM he PPC who COP-PERF-ACC PPC know-IMP that
sana-ǰu bai-na.
hope-ADVL AUX-NPST
'I hope to know who he was.'

The reduced question in (118b), which is anteceded by (118a), contains the *wh*-remnant and the optional copula. The reduced question is analyzed as (118c), which includes a null pronominal subject. The null subject can alternate with the overt pronominal subject taking the correlate in (118a) as its antecedent, as illustrated in (118d).

Thus far, we have considered cases with NP *wh*-phrases. The pattern discussed above can be replicated with adjunct *wh*-phrases, as illustrated in (119-120).

(119) a. Batu-Ø marγasi nige γaǰar xödelgegen-dü orulča-na.
Batu-NOM tomorrow one place event-DAT attend-NPST
'Batu will attend an event at a place tomorrow.'

b. Bi-Ø [χamiγa (bol-χu)]-yi ni mede-ne.
I-NOM where COP-INF-ACC PPC know-NPST
'I know where.'

c. Bi-Ø [tere-Ø ni χamiγa (bol-χu)]-yi (ni) mede-ne.
I-NOM 3SG-NOM PPC where COP-INF-ACC PPC know-NPST
'I know where that is.'

(120) a. Batu-Ø yamar nigen čaγ-tu baγsi-ača asaγulta-Ø asaγu-ba.
Batu-NOM some one time-DAT teacher-ABL question-ACC ask-PST
'Batu asked a teacher a question at some time.'

b. Bi-Ø [xeǰiye (bol-χu)]-yi ni γaiχa-ǰu bai-na.
I-NOM when COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder when.'

c. Bi-Ø [tere-Ø ni xeǰiye (bol-χu)]-yi (ni) γaiχa-ǰu
I-NOM 3SG-NOM PPC when COP-INF-ACC PPC wonder-ADVL
bai-na.
AUX-NPST
'I wonder when that is.'

The sentences in (119a) and (120a) are intended to antecede the reduced questions in (119b) and (120b), respectively, where the remnants are adjunct *wh*-phrases. The *wh*-phrases may

optionally be accompanied by the copulas. Moreover, the pronominal subjects can appear in the reduced questions, as illustrated in (119c) and (120c).

In addition, the pseudo-sluicing analysis can explain the observation that reduced questions in CM can be used felicitously without verbally expressed antecedents. Consider (101) again, repeated here as (121).

(121) Context: Tana and the speaker are shopping in a boutique. The speaker picks up a mysterious product and says:

a. Bi-Ø [yaγu (bol-χu)]-yi ni mede-xü ügei.
I-NOM what COP-INF-ACC PPC know-INF not
'I don't know what.'

b. Bi-Ø [tere ni yaγu (bol-χu)]-yi (ni) mede-xü ügei.
I-NOM 3SG PPC what COP-INF-ACC PPC know-INF not
'I don't know what it is.'

(121a) contains an utterance with a reduced indirect question, which is felicitous with the context given. The felicity of (121a) can be accounted for if the reduced question involves a pronominal subject rather than sluicing. This prediction is borne out, as illustrated in (121b). (121b) containing a pseudo-sluiced clause with an overt pronominal subject is acceptable under the context, which is not verbally expressed.

Importantly, the pseudo-sluicing analysis can explain the lack of island effects in reduced questions because a pseudo-sluiced clause does not contain an island. See the example below.

(122) a. Mergen-Ø [Tana-du yaɣuma-Ø xürge-gsen] xümün-i
Mergen-NOM Tana-DAT thing-ACC give-PERF.ADN person-ACC
ol-ǰu üǰe-be.
AUX-ADVL see-PST
'Mergen saw the person who gave Tana a thing.'

b. Bi-Ø [yaɣu (bol-χu)]-yi ni ɣaiχa-ǰu bai-na.
I-NOM what COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder what.'

c. Bi-Ø [tere-Ø ni yaɣu (bol-χu)]-yi (ni) ɣaiχa-ǰu
I-NOM 3SG-NOM PPC what COP-INF-ACC PPC wonder-ADVL
bai-na.
AUX-NPST
'I wonder what it is.'

The sentence in (122a) is the antecedent of the reduced question in (122b), where the *wh*-remnant can be accompanied by the copula. The correlate of the remnant is inside the relative clause in (122a). Further, a pronominal subject is allowed to appear in the reduced question, as shown in (122c). Since (122c) is a pseudo-sluiced clause, which does not involve an island, the island effect is not observed.

In the reduced questions discussed so far, the PPCs following the reduced questions are the third-person *ni*. As discussed in section 3.2, PPCs following non-finite complement clauses function to indicate the subject of the complement clauses. Accordingly, the presence of the third-person PPC indicates that the subjects of the reduced questions are third-person pronouns. Let us consider the data below.

(123) a. Či-Ø öčügedür nige ǰimis-Ø ide-be,
you-NOM yesterday one fruit-ACC eat-PST
'Yesterday you ate some fruit,'

b. bi-Ø [či-Ø öčügedür yamar ǰimis-Ø ide-gsen]-i
I-NOM you-NOM yesterday what.kind fruit-ACC eat-PERF-ACC
(čini) mede-ye geǰü sana-ǰu bai-na.
2SG.PPC know-IMP that hope-ADVL AUX-NPST
'I want to know what kind of fruit you ate yesterday.'

c.* bi-Ø [či-Ø öčügedür yamar ǰimis-Ø ide-gsen]-i
I-NOM you-NOM yesterday what.kind fruit-ACC eat-PERF-ACC
ni mede-ye geǰü sana-ǰu bai-na.
3SG.PPC know-IMP that hope-ADVL AUX-NPST
'I want to know what kind of fruit you ate yesterday.'

d.* bi-Ø [yamar ǰimis]-i čini mede-ye geǰü sana-ǰu bai-
I-NOM what.kind fruit-ACC 2SG.PPC know-IMP that hope-ADVL AUX-
na.
NPST
'I want to know what kind of fruit.'

e. bi-Ø [yamar ǰimis]-i ni mede-ye geǰü sana-ǰu
I-NOM what.kind fruit-ACC 3SG.PPC know-IMP that hope-ADVL
bai-na.
AUX-NPST
'I want to know what kind of fruit.'

f. bi-Ø [$_{CP}$ yamar ǰimis-Ø$_i$ [$_{IP}$ či-Ø öčügedür t$_i$ ide-
I-NOM what.kind fruit-ACC 2SG.PPC yesterday eat-
gsen]]-i čini mede-ye geǰü sana-ǰu bai-na
PERF-ACC 2SG.PPC know-IMP that hope-ADVL AUX-NPST

The sentence in (123a) antecedes each of (123b-e). (123b) contains a full-fledged embedded *wh*-question whose subject is a second-person pronoun. Correspondingly, the embedded question can only be followed by the second-person PPC, as in (123b). (123c) with the third-person PPC is not acceptable. Then let us consider the reduced questions in (123d-e). If the reduced question were derived from (123b) via moving the *wh*-phrase, *yamar ǰimis* 'what kind of fruit,' into the specifier position of CP, followed by IP deletion, then the PPC on the reduced question should be the second-person *čini*, as illustrated in (123f). This prediction is not borne out because the reduced question with *čini* is not acceptable, as shown in (123d). Only the third-person PPC in the reduced question is acceptable, as in (123e). This observation is not captured by the sluicing analysis, as illustrated in (123f). Instead, it can be explained by the pseudo-sluicing analysis, as shown in (124).

(124) a. bi-Ø [yamar ǰimis (bol-χu)]-yi ni mede-ye geǰü sana-
I-NOM what.kind fruit COP-INF-ACC 3SG.PPC know-IMP that hope-
ǰu bai-na.
ADVL AUX-NPST
'I want to know what kind of fruit.'

b. bi-Ø [tere ni yamar ǰimis (bol-χu)]-yi (ni)
I-NOM 3SG 3SG.PPC what.kind fruit COP-INF-ACC 3SG.PPC
mede-ye geǰü sana-ǰu bai-na.
know-IMP that hope-ADVL AUX-NPST
'I want to know what kind of fruit it was.'

In the reduced question in (123e), which is anteceded by (123a), the copula *bol* is allowed to appear, as shown in (124a). The presence of the third-person PPC predicts that the subject of the reduced question should be in the third person. This prediction is borne out. The reduced question allows the presence of an overt pronominal subject, as illustrated in (124b). The embedded clause in (124b) is a pseudo-sluiced clause with a third-person subject.

The same pattern can be observed in the set of data below.

(125) a. Bi-Ø nige xümün-i čoxi-ba.
I-NOM one person-ACC hit-PST
'I hit someone.'
b. Či-Ø [(minu) xen-i čoxi-γsan]-i (mini) mede-ye
you-NOM 1SG.GEN who-ACC hit-PERF-ACC 1SG.PPC know-IMP
geǰü sana-ǰu bai-na uu?
that hope-ADVL AUX-NPST Q.PRT
'Do you want to know who I hit?'

c.* Či-Ø [minu xen-i čoxi-γsan]-i ni mede-ye
you-NOM 1SG.GEN who-ACC hit-PERF-ACC 3SG.PPC know-IMP
geǰü sana-ǰu bai-na uu?
that hope-ADVL AUX-NPST Q.PRT
'Do you want to know who I hit?'

d. Či-Ø [xen]-i ni mede-ye geǰü sana-ǰu bai-na
you-NOM who-ACC 3SG.PPC know-IMP that hope-ADVL AUX-NPST
uu?
Q.PRT
'Do you want to know who?'

e.* Či-Ø [xen]-i mini mede-ye geǰü sana-ǰu bai-na
you-NOM who-ACC 1SG.PPC know-IMP that hope-ADVL AUX-NPST
uu?
Q.PRT
'Do you want to know who?'

f. Či-Ø [$_{CP}$ xen-i$_j$ [$_{IP}$ (minu) t_j čoxi-γsan]]-i mini
you-NOM who-ACC 1SG.GEN hit-PERF-ACC 1SG.PPC
mede-ye geǰü sana-ǰu bai-na uu
know-IMP that hope-ADVL AUX-NPST Q.PRT

The sentence in (125a) is the antecedent of the full-fledged indirect questions in (125b-c) and the reduced questions in (125d-e). In the full-fledged embedded questions, the subject is a first-person pronoun; thus, only the first-person PPC *mini* is grammatical. If the reduced question were derived from (125b) by moving the *wh*-phrase followed by IP deletion, as demonstrated

in (125f), the first-person PPC should appear in the reduced question. However, the presence of *mini* renders the reduced question unacceptable, as shown in (125e). Only the third-person *ni* can appear in the reduced question, as in (125d).

In addition, the reduced question in (125d) allows the appearance of the copula *bol*, as illustrated in (126a).

(126) a. Či-Ø [xen (bol-χu)]-yi ni mede-ye geǰü sana-ǰu
you-NOM who COP-INF-ACC 3SG.PPC know-IMP that hope-ADVL
bai-na uu?
AUX-NPST Q.PRT
'Do you want to know who?'

b. Či-Ø [tere ni xen (bol-χu)]-yi (ni) mede-ye
you-NOM 3SG PPC who COP-INF-ACC 3SG.PPC know-IMP
geǰü sana-ǰu bai-na uu?
that hope-ADVL AUX-NPST Q.PRT
'Do you want to know who he was?'

Furthermore, the reduced question allows the appearance of an overt pronominal subject, as shown in (126b). Since the subject of the embedded clause in (126b) is in the third person, it follows that the third-person PPC appears in the reduced question. The data in (123-126) show that the presence of the third-person PPC *ni* in reduced embedded questions in CM can be explained by the pseudo-sluicing analysis.

The cases of truncated embedded clauses we have considered so far all involve *wh*-remnants. In fact, the pseudo-sluicing analysis can also explain cases with non-*wh*-remnants. See the example (127) below.

(127) a. Batu-Ø [Mergen-i očügedür Xöxeχota-du siraγsan χonin
Batu-NOM Mergen-ACC yesterday Hohhot-DAT roasted sheep
miχa-Ø ide-be geǰü] üǰe-ǰü bai-na,
meat-ACC eat-PST COMP think-ADVL AUX-NPST
'Batu thinks that Mergen ate roasted lamb in Hohhot yesterday,'

b. gebečü bi-Ø [siraγsan üxer-ün miχa (bol-una) geǰü] üǰe-ǰü
but I-NOM roasted cow-GEN meat COP-NPST COMP think-ADVL
bai-na.
AUX-NPST
'lit. but I think that roasted beef.'

c. gebečü bi-Ø [tere(-yi) ni siraγsan üxer-ün miχa (bol-una)
but I-NOM 3SG-ACC PPC roasted cow-GEN meat COP-NPST
geǰü] üǰe-ǰü bai-na.
COMP think-ADVL AUX-NPST
'but I think that it was roasted beef.'

The sentence in (127a) antecedes the truncated embedded clause in (127b) consisting of the non-*wh*-remnant, the copula, and the COMP. The truncated clause in (127b) permits the appearance of a pronominal subject, as illustrated in (127c). (127c) contains an embedded pseudo-sluiced clause with the overt subject.

The pseudo-sluicing analysis can account for some of the properties of reduced embedded questions illustrated in section 3.3.2. The presence of the copula in the reduced questions can be captured by this analysis. Moreover, since remnant *wh*-phrases are the complements of the copulas, they are not assigned case. In addition, the pseudo-sluicing analysis does not posit *wh*-movement in CM, a *wh*-in-situ language. Nevertheless, the observation that reduced questions in CM permit the sloppy interpretation is difficult to explain under the pseudo-sluicing analysis. See the data below.

(128) a. Batu-Ø [öber-tegen χamiγa oči-χu-bar tomila-γda-γsan]-
Batu-NOM self-DAT.REF.POSS where go-INF-INSTR dispatch-PASS-PERF-
iyan mede-xü ügei,
REF.POSS know-INF not
'lit. Batu doesn't know where self will be dispatched to,'

b. getele Tana-Ø [χamiγa (bol-χu)]-yi ni mede-ne.
but Tana-NOM where COP-INF-ACC PPC know-NPST
'but Tana knows where.'

c. getele Tana-Ø [tere ni χamiγa (bol-χu)]-yi (ni) mede-ne.
but Tana-NOM 3SG PPC where COP-INF-ACC PPC know-NPST
'but Tana knows where it is.'

The sentence in (128a) is intended to antecede the reduced question in (128b). (128b) allows both the strict interpretation that *Tana knows where Batu will be dispatched to* and the sloppy interpretation that *Tana knows where Tana herself will be dispatched to*. In line with the pseudo-sluicing analysis, the reduced question allows the presence of the overt pronominal subject, as

shown in (128c). In (128c), the strict interpretation is available, but the sloppy interpretation is not. Based on (128), we can see that the pseudo-sluicing analysis cannot account for the presence of the sloppy interpretation in reduced questions in CM. According to the previous literature (e.g., Saito 2004), the sloppy interpretation of reduced questions in Japanese can be explained by the reduced pseudo-cleft analysis. The following subsection will consider whether the reduced pseudo-cleft analysis is applicable to analyze reduced questions in CM.

3.3.3.2 The reduced pseudo-cleft analysis

This subsection illustrates the reduced pseudo-cleft analysis accounting for reduced embedded questions with non-case-marked remnants in CM. Let us start our discussion with the example below.

(129) a. Batu-Ø öčügedür nige baγsi-ača asaγulta-Ø asaγu-ba.
Batu-NOM yesterday one teacher-ABL question-ACC ask-PST
'Batu asked a teacher a question yesterday.'

b. Bi-Ø [ali baγsi bol-χu]-yi ni γaiχa-ǰu bai-na.
I-NOM which teacher COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder which teacher.'

c. Bi-Ø [[Batu-yin asaγulta-Ø asaγu-γsan] ni ali baγsi
I-NOM Batu-GEN question-ACC ask-PERF.ADN PPC which teacher
bol-χu]-yi (ni) γaiχa-ǰu bai-na.
COP-INF-ACC PPC wonder-ADVL AUX-NPST

‘I wonder which teacher the person Batu asked a question to was.’

d. Bi-Ø [[Batu-yin asaγulta-Ø asaγu-γsan] ni ali baγsi
I-NOM Batu-GEN question-ACC ask-PERF.ADN PPC which teacher
bol-χu]-yi (ni) γaiχa-ǰu bai-na
COP-INF-ACC PPC wonder-ADVL AUX-NPST

The sentence in (129a) serves to antecede the reduced question in (129b) and the embedded pseudo-cleft sentence in (129c). The reduced question contains a non-case-marked *wh*-remnant, followed by the copula. The pseudo-cleft sentence in (129c) consists of a clausal subject marked by the PPC *ni*, which expresses the presupposition, the *wh*-pivot, and the copula. Now let us elide the PPC-marked clausal subject in (129c), indicated with grey shading in (129d); the resulting structure is identical to the reduced question in (129b).

Ellipsis of a clausal subject should be allowed since subject ellipsis has been observed and discussed in Mongolian (e.g., Takahashi 2007; Sakamoto 2017; 2020; Sato 2019). See the data below.

(130) a. Batu-Ø [öber-ün xeüxed-iyen Anggli xele sur-uγsan
Batu-NOM self-GEN child-REF.POSS English language study-PERF
(učir)-ača] bayarla-na,
reason-ABL pleased-NPST
‘lit. Batu is pleased because self’s child studied English,’

b. Tana-Ø [*e* Orus xele sur-uγsan (učir)-ača] bayarla-na.
Tana-NOM Russian language study-PERF reason-ABL pleased-NPST
‘lit. Tana is pleased because *e* studied Russian.’

The sentence in (130a) is intended to antecede the sentence in (130b) containing an empty subject. (130b) yields not only the strict reading that *Tana is pleased because Batu's child studied Russian*, as shown in (131a), but also the sloppy reading that *Tana is pleased because Tana's child studied Russian*, as in (131b).

(131) a. Tana-Ø [tere-Ø Orus xele sur-uγsan (učir)-ača]
Tana-NOM 3SG-NOM Russian language study-PERF reason-ABL
bayarla-na.
pleased-NPST
'Tana is pleased because he studied Russian.'

b. Tana-Ø [öber-ün xeüxed-iyen Orus xele sur-uγsan
Tana-NOM self-GEN child-REF.POSS Russian language study-PERF
(učir)-ača] bayarla-na.
reason-ABL pleased-NPST
'lit. Tana is pleased because self's child studied Russian.'

c. Tana-Ø [öber-ün xeüxed-iyen orus xele sur-uγsan
Tana-NOM self-GEN child-REF.POSS Russian language study-PERF
(učir)-ača] bayarla-na
reason-ABL pleased-NPST

In (131a), the third-person subject of the embedded clause refers to *Batu's child* in (130a). When the third-person subject in (131a) is dropped, the strict reading of (130b) is explained. In (131b), the subject of the embedded clause contains the anaphor *öber* 'self,' which refers to the

matrix subject in (131b), namely, *Tana*. The sloppy reading of (130b) is derived when the embedded subject of (131b) is elided, indicated with grey shading in (131c). The availability of the sloppy reading in (130b) indicates that the empty subject in (130b) is not simply the result of *pro*-drop. It actually involves subject ellipsis.

In addition, null subjects in Mongolian can yield what is called quantificational interpretation (e.g., Takahashi 2007; Sakamoto 2017; 2020), as exemplified in (132) below.

(132) a. Nidunun, tabu-ača ilegüü suruγči-Ø ögülebüri ǰüi sur-ba,
last.year five-ABL more student-NOM syntax theory study-PST
'Last year five or more students studied syntax,'

b. ene ǰil (ni) bol, *e* udχa ǰüi sur-ba.
this year PPC TOP semantics theory study-PST
'lit. This year, *e* studied semantics.'

c. ene ǰil (ni) bol, tede-Ø udχa ǰüi sur-ba.
this year PPC TOP they-NOM semantics theory study-PST
'This year, they studied semantics.'

d. ene ǰil (ni) bol, tabu-ača ilegüü suruγči-Ø udχa ǰüi
this year PPC TOP five-ABL more student-NOM semantics theory
sur-ba.
study-PST
'This year, five or more students studied semantics.'

The sentence in (132a) serves as the antecedent for the sentence in (132b) with an empty subject. (132b) is ambiguous. It can mean that *the set of students who studied syntax last year studied*

semantics this year, as shown in (132c). Additionally, the set of students who studied semantics this year can be different from the set of students who studied syntax last year. This is the quantificational reading, as illustrated in (132d). The strict reading of (132b) is obtained when the subject of (132c) is dropped. On the other hand, the quantificational reading of (132b) is explained when the subject in (132d) is elided. In sum, the availability of the sloppy reading and the quantificational reading exemplified in (130) and (132) demonstrates that subject ellipsis is allowed in CM.

In addition to subject ellipsis, clausal ellipsis is observed in CM. Consider (133) below:

(133) a. Batu-Ø [$_{CP}$ beye-(yi)-ben abiyastan bol-χu]-yi mede-ne,
Batu-NOM body-ACC-REF.POSS genius COP-INF-ACC know-NPST
'lit. Batu knows that self is a genius,'

b. Tana-Ø e_{CP} mede-xü ügei.
Tana-NOM know-INF not
'lit. Tana doesn't know.'

The sentence in (133a) is the antecedent of the sentence in (133b). (133a) contains an embedded clause, which is omitted in (133b). (133b) permits not only the strict interpretation that *Tana doesn't know that Batu is a genius*, as in (134a), but also the sloppy reading that *Tana doesn't know that Tana herself is a genius*, as shown in (134c).

(134) a. Tana-Ø [$_{CP}$ tegün-ü abiyastan bol-χu]-yi mede-xü ügei.
Tana-NOM 3SG-GEN genius COP-INF-ACC know-INF not
'Tana doesn't know that he is a genius.'

b. Tana-Ø [$_{CP}$ tegün-ü abiyastan bol-χu]-yi mede-xü ügei
Tana-NOM 3SG-GEN genius COP-INF-ACC know-INF not

c. Tana-Ø [$_{CP}$ beye-(yi)-ben abiyastan bol-χu]-yi mede-xü ügei.
Tana-NOM body-ACC-REF.POSS genius COP-INF-ACC know-INF not
'lit. Tana doesn't know that self is a genius.'

d. Tana-Ø [$_{CP}$ beye-(yi)-ben abiyastan bol-χu]-yi mede-xü ügei
Tana-NOM body-ACC-REF.POSS genius COP-INF-ACC know-INF not

The strict reading of (133b) is obtained when the CP in (134a) is elided, indicated with grey shading in (134b). Additionally, the sloppy reading of (133b) is derived when the CP in (134c) is elided, as illustrated in (134d). The availability of the sloppy reading indicates that clausal ellipsis is involved in (133b). Since subject ellipsis and clausal ellipsis are allowed in CM, it is understandable that clausal subjects of the pseudo-cleft sentences can be elided, as in (129). Accordingly, reduced questions in CM can be derived by applying subject ellipsis to embedded pseudo-cleft sentences.

Now let us return to the discussion on reduced questions. The reduced question in (129) contains an NP *wh*-remnant. Now let us consider a case with an adjunct *wh*-remnant. See the data in (135) below.

(135) a. Batu-Ø nige γaǰar-ača γurban-debter nom-i ǰigele-be,
Batu-NOM one place-ABL three-CL book-ACC borrow-PST
'Batu borrowed three books from a place,'

b. getele bi-Ø [χamiγa bol-χu]-yi ni mede-xü ügei.
but I-NOM where COP-INF-ACC PPC know-INF not

‘but I don’t know where.’

c. getele bi-Ø [[Batu-yin γurban-debter nom-i ǰigele-gsen]
but I-NOM Batu-GEN three-CL book-ACC borrow-PERF.ADN
ni χamiγa bol-χu]-yi (ni) mede-xü ügei.
PPC where COP-INF-ACC PPC know-INF not
‘but I don’t know where the place Batu borrowed three books was.’

d. getele bi-Ø [[Batu-yin γurban-debter nom-i ǰigele-gsen] ni
but I-NOM Batu-GEN three-CL book-ACC borrow-PERF.ADN PPC
χamiγa bol-χu]-yi (ni) mede-xü ügei
where COP-INF-ACC PPC know-INF not

The reduced question with the adjunct *wh*-remnant in (135b) and the embedded pseudo-cleft sentence in (135c) with the adjunct *wh*-pivot take the sentence in (135a) as their antecedent. Now let us elide the clausal subject in (135c), indicated in (135d); we can obtain the reduced question in (135b). The reduced pseudo-cleft analysis accounts for the appearance of the copula *bol* in reduced questions because the pseudo-cleft sentences in CM contain *bol*. Since pivots in the pseudo-cleft sentences in CM are the complements of the copulas, they are not case-marked. It follows that the remnants in reduced questions are not case-marked.

The remnant phrases in (129) and (135) are *wh*-phrases. In addition, non-*wh*-phrases are allowed in reduced embedded clauses in CM. This observation can be captured by the pseudo-sluicing analysis, as discussed in the previous section. It can also be explicated by the reduced pseudo-cleft analysis. Consider the example below:

(136) a. Batu-Ø [Mergen-i očügedür Xöxeχota-du siraγsan χonin
Batu-NOM Mergen-ACC yesterday Hohhot-DAT roasted sheep
miχa-Ø ide-be geǰü] üǰe-ǰü bai-na,
meat-ACC eat-PST COMP think-ADVL AUX-NPST
'Batu thinks that Mergen ate roasted lamb in Hohhot yesterday,'

b. gebečü bi-Ø [siraγsan üxer-ün miχa bol-una geǰü] üǰe-ǰü
but I-NOM roasted cow-GEN meat COP-NPST COMP think-ADVL
bai-na.
AUX-NPST
'lit. but I think that roasted beef.'

c. gebečü bi-Ø [[Mergen-ü očügedür Xöxeχota-du ide-gsen] ni
but I-NOM Mergen-GEN yesterday Hohhot-DAT eat-PERF.ADN PPC
siraγsan üxer-ün miχa bol-una geǰü] üǰe-ǰü bai-na.
roasted cow-GEN meat COP-NPST COMP think-ADVL AUX-NPST
'but I think what Mergen ate in Hohhot yesterday was roasted beef.'

d. gebečü bi-Ø [[Mergen-ü očügedür Xöxeχota-du ide-gsen] ni
but I-NOM Mergen-GEN yesterday Hohhot-DAT eat-PERF.ADN PPC
siraγsan üxer-ün miχa bol-una geǰü] üǰe-ǰü bai-na
roasted cow-GEN meat COP-NPST COMP think-ADVL AUX-NPST

The sentence in (136a) serves to antecede the truncated clause in (136b) with a non-*wh*-remnant and the embedded pseudo-cleft sentence in (136c) with a non-*wh*-pivot. The reduced clause is derived when the clausal subject in (136c) is elided, as shown in (136d).

Importantly, the availability of the sloppy interpretation in reduced questions can be explained by the reduced pseudo-cleft analysis. See the data below.

(137) a. Batu-Ø [öber-tegen χamiγa oči-χu-bar tomila-γda-γsan]-
Batu-NOM self-DAT.REF.POSS where go-INF-INSTR dispatch-PASS-PERF-
iyan mede-xü ügei,
REF.POSS know-INF not
'lit. Batu doesn't know where self will be dispatched to,'

b. getele Tana-Ø [χamiγa bol-χu]-yi ni mede-ne.
but Tana-NOM where COP-INF-ACC PPC know-NPST
'but Tana knows where.'

The reduced question in (137b) containing the *wh*-remnant and the copula takes the sentence in (137a) as its antecedent. The reduced question permits the strict reading that *Tana knows where Batu will be dispatched to*, as illustrated in (138a). Additionally, the sloppy reading that *Tana knows where Tana herself will be dispatched to* is allowed, as illustrated in (138b).

(138) a. getele Tana-Ø [[tegün-ü oči-χu-bar tomila-γda-γsan] ni
but Tana-NOM 3SG-GEN go-INF-INSTR dispatch-PASS-PERF.ADN PPC
χamiγa bol-χu]-yi (ni) mede-ne.
where COP-INF-ACC PPC know-NPST
'but Tana knows where the place he will be dispatched to is.'

b. getele Tana-Ø [[öber-tegen oči-χu-bar tomila-γda-γsan]
but Tana-NOM self-DAT.REF.POSS go-INF-INSTR dispatch-PASS-PERF.ADN
iyan/ni χamiγa bol-χu]-yi (ni) mede-ne.
REF.POSS/PPC where COP-INF-ACC PPC know-NPST
'lit. but Tana knows where the place self will be dispatched to is.'

The sloppy reading of (137b) is allowed considering the fact that the anaphor *öber* 'self' appears in the clausal subject of the embedded pseudo-cleft sentence in (138b) and co-refers with the matrix subject *Tana* in (138b). Since the embedded subject in the antecedent clause in (137a) is the anaphor *öber* 'self,' subject ellipsis can be applied to (138b) with the identity requirement of ellipsis being met. On the other hand, readers may wonder why the strict interpretation is permitted given that the embedded subject in the antecedent clause in (137a) is the anaphor *öber* 'self,' while the subject of the embedded pseudo-cleft sentence in (138a) is the third-person pronoun. According to the previous literature (e.g., Fiengo and May 1994; Merchant 2001; Saito 2004), an operation called *vehicle change* can be applied to explain the licensing of cases of ellipsis like (137-138). When an anaphor and a pronoun refer to the same person, they can be taken as identical under ellipsis. See (139) for an illustration.

(139) a. Ken will [$_{VP}$ hug himself],
b. then Jon will.
c. then Jon will [$_{VP}$ hug him]
(cited from Ahn 2011: 8)

The sentence in (139a) is the antecedent of the sentence in (139b) involving VP ellipsis. The ellipsis site, indicated with grey shading in (139c), contains the pronoun *him*. Though the antecedent clause contains the anaphor *himself*, the anaphor and the pronoun refer to the same person, namely *Ken*. Accordingly, the ellipsis is licensed. Going back to the reduced question in (137), the anaphor *öber* 'self' in (137a) and the third-person pronoun in (138a) refer to the same person, namely, *Batu*. Subsequently, the ellipsis is licensed, and the strict reading of (137b) is thereby explained. Also, as discussed in the previous section, the strict reading can be explained by the pseudo-sluicing analysis.

This subsection has illustrated the reduced pseudo-cleft analysis accounting for reduced embedded clauses with non-case-marked remnants in CM. The reduced questions can be directly derived by applying subject ellipsis, which is independently allowed in CM, to the pseudo-cleft sentences. Importantly, the pivots in the pseudo-cleft sentences are complements of the copulas and thus do not undergo movement. Accordingly, the reduced pseudo-cleft analysis does not posit movement of *wh*-phrases in CM, a *wh*-in-situ language.

As discussed in section 3.3.2, the case-matching effect is observed in reduced questions in CM. Since the pivots in the pseudo-cleft sentences are not case-marked, the case-matching effect cannot be explained by the reduced pseudo-cleft analysis. Next, let us consider the reduced cleft analysis accounting for the case-matching effect in reduced embedded questions.

3.3.3.3 The reduced cleft analysis

The focus of this subsection is to analyze cases of reduced indirect questions with case-marked remnants in terms of the reduced cleft analysis. Let us first consider the data below.

(140) a. Batu-Ø nige xümün-dü ene nom-i xürge-be,
Batu-NOM one person-DAT this book-ACC give-PST
'Batu gave this book to a person,'

b. bi-Ø [xen-dü bol-χu]-yi ni γaiχa-ǰu bai-na.
I-NOM who-DAT COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder to whom.'

c. bi-Ø [[Batu-yin ene nom-i xürge-gsen] ni xen-dü
I-NOM Batu-GEN this book-ACC give-PERF.ADN PPC who-DAT
bol-χu]-yi (ni) γaiχa-ǰu bai-na.
COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder to whom it was that Batu gave that book.'

d. bi-Ø [[Batu-yin ene nom-i xürge-gsen] ni xen-dü
I-NOM Batu-GEN this book-ACC give-PERF.ADN PPC who-DAT
bol-χu]-yi (ni) γaiχa-ǰu bai-na
COP-INF-ACC PPC wonder-ADVL AUX-NPST

The sentence in (140a) is the antecedent of the reduced question in (140b) and the embedded cleft sentence in (140c). The reduced question contains the dative-marked *wh*-remnant and the copula. The cleft sentence consists of a presuppositional clause marked by *ni*, the dative-marked *wh*-pivot, and the copula. Now let us elide the presuppositional clause of the embedded cleft sentence, indicated with grey shading in (140d); the resulting structure is the same as the reduced question in (140b). The presuppositional clause functions as the subject of the embedded clause. Since subject ellipsis is independently allowed in Mongolian, as discussed in

the previous section, ellipsis of the presuppositional clause should be allowed.

Now let us look at a set of data involving an ablative-marked remnant.

(141) a. Batu-Ø öčügedür nige baγsi-ača asaγulta-Ø asaγu-ba.
Batu-NOM yesterday one teacher-ABL question-ACC ask-PST
'Batu asked a teacher a question yesterday.'

b. Bi-Ø [ali baγsi-ača bol-χu]-yi ni γaiχa-ǰu bai-na.
I-NOM which teacher-ABL COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder which teacher.'

c. Bi-Ø [[Batu-yin asaγulta-Ø asaγu-γsan] ni ali baγsi-ača
I-NOM Batu-GEN question-ACC ask-PERF.ADN PPC which teacher-ABL
bol-χu]-yi (ni) γaiχa-ǰu bai-na.
COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder which teacher it was that Batu asked a question.'

d. Bi-Ø [[Batu-yin asaγulta-Ø asaγu-γsan] ni ali baγsi-ača
I-NOM Batu-GEN question-ACC ask-PERF.ADN PPC which teacher-ABL
bol-χu]-yi (ni) γaiχa-ǰu bai-na
COP-INF-ACC PPC wonder-ADVL AUX-NPST

The reduced question in (141b) with the ablative-marked *wh*-remnant and the embedded cleft sentence in (141c) with the ablative-marked *wh*-pivot take (141a) as their antecedent. The reduced question is obtained when subject ellipsis is applied to the embedded cleft sentence in (141c), as indicated in (141d).

The reduced questions in (140-141) contain argument *wh*-remnants. Reduced questions with

adjunct remnants can also be derived from cleft sentences. See the data below.

(142) a. Batu-Ø nige γaǰar-ača γurban-debter nom-i ǰigele-be,
Batu-NOM one place-ABL three-CL book-ACC borrow-PST
'Batu borrowed three books from a place,'

b. getele bi-Ø [χamiγa-ača bol-χu]-yi ni mede-xü ügei.
but I-NOM where-ABL COP-INF-ACC PPC know-INF not
'but I don't know from where.'

c. getele bi-Ø [[Batu-yin γurban-debter nom-i ǰigele-gsen]
but I-NOM Batu-GEN three-CL book-ACC borrow-PERF.ADN
ni χamiγa-ača bol-χu]-yi (ni) mede-xü ügei.
PPC where-ABL COP-INF-ACC PPC know-INF not
'but I don't know from where it was that Batu borrowed three books.'

d. getele bi-Ø [[Batu-yin γurban-debter nom-i ǰigele-gsen] ni
but I-NOM Batu-GEN three-CL book-ACC borrow-PERF.ADN PPC
χamiγa-ača bol-χu]-yi (ni) mede-xü ügei
where-ABL COP-INF-ACC PPC know-INF not

(142a) functions as the antecedent for the reduced question in (142b) and the embedded cleft sentence in (142c). The reduced question contains an ablative-marked adjunct *wh*-remnant, accompanied by the copula. The reduced question can be directly derived from eliding the presuppositional clause of the cleft sentence in (142c), as shown in (142d).

Thus far, we have considered cases of reduced questions in which the remnants are marked dative or ablative. Next, let us examine whether the remnants can be marked accusative.

Consider the data in (143) below:

(143) A: Bide-Ø man-u anggi-yin nige suruγči-yi urulduγan-du
we-NOM 2PL-GEN class-GEN one student-ACC competition-DAT
orulča-γul-χu-bar tomila-ǰu bol-una.
participate-CAUS-INF-INSTR assign-ADVL AUX-NPST
'We can assign a student in our class to participate in the competition.'

B:* Bi-Ø [xen-i bol-χu]-du ni sanal ügei.
I-NOM who-ACC COP-INF-DAT PPC opinion not
'I have no opinion on who.'

Two speakers, A and B, engage in a conversation. A's utterance in (143) antecedes B's utterance. The correlate of the *wh*-remnant is *nige suruγči* 'one student,' which is marked accusative. Nevertheless, the reduced indirect question is not acceptable with the remnant marked accusative. The unacceptability of (143B) can be explained by the reduced cleft analysis. See (144) for an illustration.

(144) a.* Bi-Ø [[biden-ü urulduγan-du orulča-γul-χu-bar tomila-ǰu
I-NOM we-GEN competition-DAT participate-CAUS-INF-INSTR assign-ADVL
bol-χu] ni xen-i bol-χu]-du ni sanal ügei.
AUX-NPST.ADN PPC who-ACC COP-INF-DAT PPC opinion not
'I have no opinion on who it is that we can assign to participate in the competition.'

b. Bi-Ø [[biden-ü urulduγan-du orulča-γul-χu-bar tomila-ǰu
I-NOM we-GEN competition-DAT participate-CAUS-INF-INSTR assign-ADVL
bol-χu] ni xen-i bol-χu]-du ni sanal ügei
AUX-NPST.ADN PPC who-ACC COP-INF-DAT PPC opinion not

The full-fledged cleft counterpart of (143B) is (144a), which is not acceptable with the accusative-marked pivot. The unacceptability of (144a) may be caused by the adjacency between the accusative marker and the copula. According to the previous literature (e.g., Inoue 1976; Sadakane and Koizumi 1995; Shimoyama 1995), when a structural case is adjacent to a copula in the cleft construction, the relevant sentence may be perceived as degraded. Since the accusative case is a structural case in Mongolian (Guntsetseg 2012), the unacceptability of (144a) may be explained. Going back to the reduced question, when subject ellipsis is applied to (144a), as shown in (144b), the reduced question in (143B) is derived. Since the full-fledged counterpart of the reduced question in (143B) is not acceptable, it is not surprising that the reduced question is not acceptable.

Up to this point, we have examined cases of reduced questions in which the remnants can be marked with the dative or ablative marker but not the accusative case marker. Now, let us consider cases where remnants are accompanied by postpositions.

(145) a. Batu-Ø nige xümün-ü tölüge čirmain temeče-deg,
Batu-NOM one person-GEN POSTP diligently work-HBT
'Batu works hard for someone,'

b. bi-Ø [xen-ü tölüge bol-χu]-yi ni mede-ye geǰü sana-ǰu
I-NOM who-GEN POSTP COP-INF-ACC PPC know-IMP that hope-ADVL
bai-na.
AUX-NPST
'I want to know for whom.'

c. bi-Ø [[Batu-yin čirmain temeče-jü bai-χu] ni xen-ü
I-NOM Batu-GEN diligently work-ADVL AUX-NPST.ADN PPC who-GEN
tölüge bol-χu]-yi (ni) mede-ye geǰü sana-ǰu bai-na.
POSTP COP-INF-ACC PPC know-IMP that hope-ADVL AUX-NPST
'I want to know for whom it is that Batu works hard.'

d. bi-Ø [[Batu-yin čirmain temeče-jü bai-χu] ni xen-ü
I-NOM Batu-GEN diligently work-ADVL AUX-NPST.ADN PPC who-GEN
tölüge bol-χu]-yi (ni) mede-ye geǰü sana-ǰu bai-na
POSTP COP-INF-ACC PPC know-IMP that hope-ADVL AUX-NPST

The sentence in (145a) is the antecedent of the reduced question in (145b) and the embedded cleft sentence in (145c). The reduced question with the *wh*-remnant accompanied by the postposition is obtained when subject ellipsis is applied to the embedded cleft sentence in (145c), as illustrated in (145d).

Let us look at another set of data involving a remnant followed by a postposition.

(146) a. Mergen-Ø urǰidur nige xeüxen-tei ǰoγuγda-ba,
Mergen-NOM the.day.before.yesterday one girl-COM.POSTP chat-PST
'Mergen chatted with a girl the day before yesterday,'

b. bi-Ø [[tegün-ü urǰidur ǰoγuγda-γsan] ni xen-
I-NOM 3SG-GEN the.day.before.yesterday chat-PERF.ADN PPC who-
tei bol-χu]-yi (ni) γaiχa-ǰu bai-na.
COM.POSTP COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder with whom it was that he chatted the day before yesterday.'

c. bi-Ø [xen-tei bol-χu]-yi ni γaiχa-ǰu bai-na.
I-NOM who-COM.POSTP COP-INF-ACC PPC wonder-ADVL AUX-NPST
'I wonder with whom.'

d. bi-Ø [[tegün-ü urǰidur ǰoγuγda-γsan] ni
I-NOM 3SG-GEN the.day.before.yesterday chat-PERF.ADN PPC
xen-tei bol-χu]-yi (ni) γaiχa-ǰu bai-na
who-COM.POSTP COP-INF-ACC PPC wonder-ADVL AUX-NPST

The embedded cleft sentence in (146b) and the truncated indirect question in (146c) are anteceded by (146a). When the presuppositional clause of the cleft sentence is dropped, as indicated in (146d), the truncated question with the *wh*-remnant accompanied by the comitative postposition is obtained.

The discussions so far have covered cases of reduced embedded clauses with *wh*-remnants. Additionally, cases with non-*wh*-remnants can be explicated by the reduced cleft analysis. See the example (147) below.

(147) a. Batu-Ø [Mergen-i očügedür Xöxeχota-du siraγsan χonin
Batu-NOM Mergen-ACC yesterday Hohhot-DAT roasted sheep
miχa-Ø ide-be geǰü] üǰe-ǰü bai-na,
meat-ACC eat-PST COMP think-ADVL AUX-NPST
'Batu thinks that Mergen ate roasted lamb in Hohhot yesterday,'

b. gebečü bi-Ø [urǰidur bol-una geǰü] üǰe-ǰü
but I-NOM the.day.before.yesterday COP-NPST COMP think-ADVL
bai-na.
AUX-NPST
'lit. but I think that the day before yesterday.'

c. gebečü bi-Ø [[Mergen-ü Xöxeχota-du siraγsan χonin
but I-NOM Mergen-GEN Hohhot-DAT roasted sheep
miχa-Ø ide-gsen] ni urǰidur bol-una geǰü]
meat-ACC eat-PERF.ADN PPC the.day.before.yesterday COP-NPST COMP
üǰe-ǰü bai-na.
think-ADVL AUX-NPST
'but I think that it was the day before yesterday that Mergen ate roasted lamb in Hohhot.'

d. gebečü bi-Ø [[Mergen-ü Xöxeχota-du siraγsan χonin
but I-NOM Mergen-GEN Hohhot-DAT roasted sheep
miχa-Ø ide-gsen] ni urǰidur bol-una geǰü]
meat-ACC eat-PERF.ADN PPC the.day.before.yesterday COP-NPST COMP
üǰe-ǰü bai-na
think-ADVL AUX-NPST

The sentence in (147a) is the antecedent of the reduced clause in (147b) with the non-*wh*-remnant and the embedded cleft sentence in (147c) with the non-*wh*-pivot. When subject ellipsis is applied to the embedded cleft sentence in (147c), indicated with grey shading in (147d), the reduced clause in (147b) is straightforwardly derived.

Importantly, the reduced cleft analysis can explicate the observation that the sloppy interpretation is allowed in reduced embedded questions in CM. Consider the data below:

(148) a. Batu-Ø [öber-tegen yaγun-du oγčura-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 [yaγun-du bol-χu]-yi ni mede-ne.
but Tana-NOM what-DAT COP-INF-ACC PPC know-NPST
'but Tana knows why.'

As discussed in subsection 3.3.2, the reduced question in (148b), which is anteceded by (148a), allows the strict reading that *Tana knows why Batu was fired* and the sloppy reading that *Tana knows why Tana herself was fired*. The two interpretations can be explained by their respective full-fledged cleft counterparts, as illustrated in (149).

(149) a. getele Tana-Ø [[tegün-ü oγčura-γda-γsan] ni yaγun-du bol-χu]-
but Tana-NOM 3SG-GEN fire-PASS-PERF.ADN PPC what-DAT COP-INF-
yi (ni) mede-ne.
ACC PPC know-NPST
'but Tana knows why it was that he was fired.'

b. getele Tana-Ø [[öber-tegen oγčura-γda-γsan]-iyan/ni
but Tana-NOM self-DAT.REF.POSS fire-PASS-PERF.ADN-REF.POSS/PPC
yaγun-du bol-χu]-yi (ni) mede-ne.
what-DAT COP-INF-ACC PPC know-NPST
'lit. but Tana knows why it was that self was fired.'

The strict interpretation of the reduced question in (148b) can be explained by (149a). The third-person subject of the presuppositional clause of the embedded cleft sentence in (149a) and the subject of the embedded clause in (148a), *öber* 'self,' refer to the same person, i.e., *Batu*. Subject ellipsis can be applied to (149a) with the help of *vehicle change* (Fiengo and May 1994; Merchant 2001; Saito 2004). As discussed in section 3.3.3.1, the strict interpretation of the reduced question can also be explained by the pseudo-sluicing analysis. Next, let us see the sloppy reading of the reduced question in (148b), which can be straightforwardly accounted for by (149b), where the identity requirement of ellipsis is satisfied with *öber* 'self' being the subject of the presuppositional clause of the embedded cleft sentence in (149b) and the subject of the embedded clause in (148a).

Next, let us consider the observation that reduced embedded questions in CM are insensitive to island effects. See the example in (150).

(150) a. Batu-Ø [Suruna-Ø nige xümün-eče nige asaγulta-Ø
Batu-NOM Suruna-NOM one person-ABL one question-ACC
asaγu-γsan (učir)-ača] bayarla-ba,
ask-PERF reason-ABL please-PST
'Batu was pleased because Suruna asked a person a question,'

b. gebečü bi-Ø [xen-eče bol-χu]-yi ni mede-xü ügei.
but I-NOM who-ABL COP-INF-ACC PPC know-INF not
'but I don't know who.'

The sentence in (150a) antecedes the reduced question in (150b). The correlate of the *wh*-phrase occurs inside the adverbial clause, which constitutes islands for movement in CM. The reduced question is acceptable in the context given, demonstrating that reduced questions in CM are not sensitive to island effects.

Note that the cleft construction in CM is sensitive to island effects (Bao 2015; Sakamoto 2017). Consider the example below:

(151) * [Batu-yin [$_{\text{adverbial clause}}$ Suruna-Ø __ χairatai (učir)-ača]
Batu-GEN Suruna-NOM fond reason-ABL
aγurla-γsan] ni xen-dü bol-χu bui?
displease-PERF.ADN PPC who-DAT COP-INF Q.PRT
'lit. Of whom was it that Batu was displeased because Suruna was fond __?'

In the cleft sentence in (151), the *wh*-pivot originates from the adverbial clause, which constitutes island for movement in CM (Bai and Takahashi 2023a). The cleft sentence is

completely degraded. The data shows that the cleft construction in CM is sensitive to island effects. Accordingly, the full-fledged cleft counterpart of (150b) is not acceptable, as shown in (152a).

(152) a.* gebečü bi-Ø [[Batu-yin [Suruna-Ø __ nige asaγulta-Ø
but I-NOM Batu-GEN Suruna-NOM one question-ACC
asaγu-γsan (učir)-ača] bayarla-γsan] ni xen-eče bol-χu]-yi
ask-PERF reason-ABL please-PERF.ADN PPC who-ABL COP-INF-ACC
(ni) mede-xü ügei.
PPC know-INF not
'lit. but I don't know who it was that Batu was pleased because Surana asked a question.'

b. gebečü bi-Ø [[Batu-yin [Suruna-Ø __ nige asaγulta-Ø
but I-NOM Batu-GEN Suruna-NOM one question-ACC
asaγu-γsan (učir)-ača] bayarla-γsan] ni xen-eče bol-χu]-yi
ask-PERF reason-ABL please-PERF.ADN PPC who-ABL COP-INF-ACC
(ni) mede-xü ügei
PPC know-INF not

The reduced question in (150b) is derived when subject ellipsis is applied to the cleft sentence in (152a), indicated with grey shading in (152b). Since the adjunct island is inside the presuppositional clause of the embedded cleft sentence, subject ellipsis may repair the island violation just as sluicing remedies island violations, as discussed in chapter 2 of this dissertation (e.g., Ross 1969; Merchant 2001).

The discussions in this subsection have shown that the reduced cleft analysis is a viable analysis explaining reduced questions where the remnants are accompanied by case markers.

3.3.3.4 Summary

I have argued that reduced embedded questions in CM can be analyzed in terms of the pseudo-sluicing analysis, the reduced pseudo-cleft analysis, or the reduced cleft analysis. Firstly, the pseudo-sluicing analysis can explain examples like (99-106), (107B''), (108e), (109e), (110c), and (111c). Further, the reduced pseudo-cleft analysis provides explanations for examples such as (99d), (100c), (107B''), (108e), (109e), (110c), (111c), and (137). Lastly, the reduced cleft analysis accounts for examples like (107), (108d), (109d), (110b), (111b), (114), and (115).

The pseudo-sluicing analyses can explain cases of reduced questions in which the remnants are not case-marked. The remnants are complements of the copula and hence are not assigned case. The reduced pseudo-cleft analysis can also explain cases of reduced questions in which the remnants are not case-marked because pivots in the pseudo-cleft sentences are not case-marked. The above two analyses can be differentiated. For example, the availability of the sloppy interpretation of reduced questions cannot be captured by the pseudo-sluicing analysis but can be explained by the reduced pseudo-cleft analysis. Additionally, the observation that reduced questions can be uttered with non-linguistic antecedents can be accounted for by the pseudo-sluicing analysis but cannot be explained by the reduced pseudo-cleft analysis. As discussed in the previous literature (e.g., Hankamer and Sag 1976; Takahashi 1994), while pronominal expressions can be used felicitously without verbally expressed antecedents, ellipsis requires linguistic antecedents. The pseudo-sluicing analysis posits the presence of

pronominal subjects in reduced questions. The reduced pseudo-cleft analysis, on the other hand, involves subject ellipsis. Lastly, the reduced cleft analysis explains cases of reduced questions with case-marked remnants because pivots in the cleft sentences are case-marked. When subject ellipsis is applied to the embedded cleft sentences, the relevant reduced embedded questions can directly be derived.

3.4 Reduced embedded questions with multiple *wh*-phrases

This section focuses on reduced embedded questions with multiple *wh*-remnants (RQMW) in CM and argues that they can be analyzed in terms of the reduced cleft analysis.

3.4.1 Basic phenomena

Truncated embedded questions with multiple remnants are observed in CM. Let us first look at the data below.

(153) a. Nige xüü-Ø nige xeüxen-dü nom-Ø xürge-be,
one boy-NOM one girl-DAT book-ACC give-PST
'A boy gave a book to a girl,'

b. gebečü bi-Ø [ali xüü-Ø ali xeüxen-dü nom-Ø
but I-NOM which boy-NOM which girl-DAT book-ACC
xürge-gsen]-i (ni) mede-xü ügei.
give-PERF-ACC PPC know-INF not
'but I don't know which boy gave a book to which girl.'

c.? gebečü bi-Ø [ali xüü-Ø ali xeüxen-dü]-yi ni mede-
but I-NOM which boy-NOM which girl-DAT-ACC PPC know-
xü ügei.
INF not
'but I don't know which boy to which girl.'

d. gebečü bi-Ø [ali xüü-Ø ali xeüxen-dü bol-χu]-yi
but I-NOM which boy-NOM which girl-DAT COP-INF-ACC
ni mede-xü ügei.
PPC know-INF not
'but I don't know which boy to which girl.'

The sentence in (153a) antecedes the full-fledged multiple *wh*-question in (153b) and the corresponding reduced question in (153c). The correlates of the remnants are *nige xüü-Ø* 'one boy-NOM' and *nige xeüxen-dü* 'one girl-DAT.' The reduced question in (153c) contains two NP *wh*-remnants, which are marked nominative and dative, respectively. The reduced question is more acceptable when the copula *bol* appears, as shown in (153d). Furthermore, the reduced question is assigned accusative case by the matrix predicate *mede* 'know' and then followed by the PPC.[12]

[12] Note that the PPC following a full-fledged embedded question like (153b) is optional, as discussed in subsection 3.2.1. Readers may wonder about the optionality or obligatoriness of the PPC in reduced questions like (153c-d) in CM. The native speakers I consulted had divergent opinions on the presence of the PPC in reduced questions. Half of the speakers said that it is optional, and the other half said that it cannot be omitted. I will ultimately argue that reduced questions have clausal structure, and hence I expect that the PPC should be optional in (153c-d) just as in (153b), which is borne out by the judgment of half of the informants. I have no clear idea about the reason for this variation among speakers and thus have to leave it to my future research. In this chapter, I indicate the PPC as obligatory in cases of reduced questions just for the sake of completeness.

In addition to nominal *wh*-phrases, adverbial *wh*-phrases are allowed to appear as remnants in RQMW in CM. Consider the following example:

(154) a. Batu-Ø nigen čaγ-tu nige baγsi-ača nige asaγulta-Ø
Batu-NOM one time-DAT one teacher-ABL one question-ACC
asaγu-ba.
ask-PST
'Batu asked a teacher a question at a certain time.'

b.? Bi-Ø [xeǰiye ali baγsi-ača]-yi ni mede-xü ügei.
I-NOM when which teacher-ABL-ACC PPC know-INF not
'lit. I don't know which teacher when.'

c. Bi-Ø [xeǰiye ali baγsi-ača bol-χu]-yi ni mede-xü ügei.
I-NOM when which teacher-ABL COP-INF-ACC PPC know-INF not
'lit. I don't know which teacher when.'

The reduced question in (154b), which is anteceded by (154a), contains an adjunct *wh*-phrase, *xeǰiye* 'when,' and an argument *wh*-phrase, *ali baγsi* 'which teacher.' The reduced question is more acceptable when the copula is present, as shown in (154c).

RQMW in CM allow two adjunct *wh*-remnants, as illustrated in (155).

(155) a. Batu-Ø nigen čaγ-tu nige γaǰar-ača nom-Ø ǰigele-be,
Batu-NOM one time-DAT one place-ABL book-ACC borrow-PST
'Batu borrowed a book from a place at a certain time,'

b.? gebečü bi-Ø [xeǰiye χamiγa-ača]-yi ni mede-xü ügei.
but I-NOM when where-ABL-ACC PPC know-INF not
'lit. but I don't know from where when.'

c. gebečü bi-Ø [xeǰiye χamiγa-ača bol-χu]-yi ni mede-xü ügei.
but I-NOM when where-ABL COP-INF-ACC PPC know-INF not
'lit. but I don't know from where when.'

The reduced questions in (155b-c), which take the sentence in (155a) as their antecedent, contain two adjunct *wh*-phrases.

Additionally, reduced embedded questions in CM allow more than two remnants, as shown in (156).

(156) a. Batu-Ø nigen čaγ-tu nige γaǰar-ača yaγuma-Ø ǰigele-be,
Batu-NOM one time-DAT one place-ABL thing-ACC borrow-PST
'Batu borrowed a thing from a place at a certain time,'

b.? gebečü bi-Ø [xeǰiye χamiγa-ača yaγu-Ø]-yi ni mede-xü ügei.
but I-NOM when where-ABL what-ACC-ACC PPC know-INF not
'lit. but I don't know what from where when.'

c. gebečü bi-Ø [xeǰiye χamiγa-ača yaγu-Ø bol-χu]-yi ni
but I-NOM when where-ABL what-ACC COP-INF-ACC PPC
mede-xü ügei.
know-INF not
'lit. but I don't know what from where when.'

The reduced questions in (156b-c), which are anteceded by (156a), consist of three remnant phrases.

The cases of truncated embedded clauses we have considered so far all contain *wh*-remnants. Importantly, multiple non-*wh*-remnants are not allowed in CM.

(157) a. Batu-Ø [Mergen-i očügedür Xöxeχota-du siraγsan χonin
Batu-NOM Mergen-ACC yesterday Hohhot-DAT roasted sheep
miχa-Ø ide-be geǰü] üǰe-ǰü bai-na,
meat-ACC eat-PST COMP think-ADVL AUX-NPST
'Batu thinks that Mergen ate roasted lamb in Hohhot yesterday,'

b.* gebečü bi-Ø [urǰidur siraγsan üxer-ün
but I-NOM the.day.before.yesterday roasted cow-GEN
miχa geǰü] üǰe-ǰü bai-na.
meat COMP think-ADVL AUX-NPST
'lit. but I think that roasted beef the day before yesterday.'

c.* gebečü bi-Ø [urǰidur siraγsan üxer-ün
but I-NOM the.day.before.yesterday roasted cow-GEN
miχa bol-una geǰü] üǰe-ǰü bai-na.
meat COP-NPST COMP think-ADVL AUX-NPST
'lit. but I think that roasted beef the day before yesterday.'

The sentence in (157a) is the antecedent of the truncated embedded clauses in (157b-c), which are not acceptable with two non-*wh*-remnants.

Lastly, let us examine whether heterogenous remnants are allowed to appear in truncated embedded clauses in CM. Consider the data below:

(158) a. ǰang baγsi-Ø [ali xüü (ni) Šangχai-du ǰuγača-ǰu
Zhang teacher-NOM which boy PPC Shanghai-DAT travel-ADVL
bai-χu]-yi (ni) mede-ne,
AUX-INF-ACC PPC know-NPST
'Mr. Zhang knows which boy is traveling in Shanghai,'

b. Li baγsi-Ø [ali xeüxen (ni) Begeǰing-dü ǰuγača-ǰu
Li teacher-NOM which girl PPC Beijing-DAT travel-ADVL
bai-χu]-yi (ni) mede-ne.
AUX-INF-ACC PPC know-NPST
'Mr. Li knows which girl is traveling in Beijing.'

c.* Li baγsi-Ø [ali xeüxen (ni) Begeǰing-dü]-yi ni
Li teacher-NOM which girl PPC Beijing-DAT-ACC PPC
mede-ne.
know-NPST
'lit. Mr. Li knows which girl in Beijing.'

d.* Li baγsi-Ø [ali xeüxen (ni) Begeǰing-dü bol-χu]-yi
Li teacher-NOM which girl PPC Beijing-DAT COP-INF-ACC
ni mede-ne.
PPC know-NPST
'lit. Mr. Li knows which girl in Beijing.'

The sentence in (158a) is intended to antecede the full-fledged embedded clause in (158b) and the truncated embedded clauses in (158c-d). While the full-fledged sentence in (158b) is acceptable, the reduced clauses in (158c-d) containing the *wh*-remnant and the non-*wh*-remnant are not.

Let us look at another set of data.

(159) a. Mergen-Ø edür bolγan nige arbin xümün-tei aγulǰa-na,
Mergen-NOM day every one many person-COM.POSTP meet-NPST
'Mergen meets with many people every day,'

b. bi-Ø [tere-Ø urǰidur xen xen-tei
I-NOM he-NOM the.day.before.yesterday who who-COM.POSTP
aγulǰa-γsan]-i (ni) γaiχa-ǰu bai-na.
meet-PERF-ACC PPC wonder-ADVL AUX-NPST
'I wonder with whom (plural) he met the day before yesterday.'

c.* bi-Ø [urǰidur xen xen-tei]-yi ni
I-NOM the.day.before.yesterday who who-COM.POSTP-ACC PPC
γaiχa-ǰu bai-na.
wonder-ADVL AUX-NPST
'lit. I wonder with whom (plural) the day before yesterday.'

d.* bi-Ø [urǰidur xen xen-tei bol-χu]-yi
I-NOM the.day.before.yesterday who who-COM.POSTP COP-INF-ACC
ni γaiχa-ǰu bai-na.
PPC wonder-ADVL AUX-NPST
'lit. I wonder with whom (plural) the day before yesterday.'

The sentence in (159a) is the antecedent of the full-fledged sentence in (159b) and the truncated clauses in (159c-d). The truncated clauses with heterogenous remnants are not acceptable.

3.4.2 Properties

This subsection details the properties of reduced embedded questions with multiple remnants in CM.

3.4.2.1 The case-matching effect

The case-matching effect is observed in reduced indirect questions with multiple remnants in CM. See the data below.

(160) a. Batu-Ø nige ɣaǰar-ača nige xümün-dü beleg-Ø ilege-be,
Batu-NOM one place-ABL one person-DAT present-ACC send-PST
'Batu sent a present to a person from a place,'

b. gebečü bi-Ø [tere-Ø χamiɣa-ača xen-dü beleg-Ø
but I-NOM he-NOM where-ABL who-DAT present-ACC
ilege-gsen]-i (ni) mede-xü ügei.
send-PERF-ACC PPC know-INF not
'but I don't know to whom he sent a present from where.'

c. gebečü bi-Ø [χamiγa-ača xen-dü bol-χu]-yi ni mede-xü
but I-NOM where-ABL who-DAT COP-INF-ACC PPC know-INF
ügei.
not
'lit. but I don't know to whom from where.'

The sentence in (160a) is intended to antecede the full-fledged multiple question in (160b) and the reduced question in (160c). In (160c), the two *wh*-remnants are case-marked in the same way as their correlates in (160a) and the corresponding *wh*-phrases in (160b).

Let us add another two sets of data.

(161) a. Batu-yin nige baγsi-Ø ni ürgülǰi nige-ǰüil-ün bir-iyer
Batu-GEN one teacher-NOM PPC often one-CL-GEN pen-INSTR
üsüg bičі-deg.
word write-HBT
'A teacher of Batu's often writes with one type of pen.'

b. Bi-Ø [ali baγsi-Ø ni yamar bir-iyer bol-χu]-yi
I-NOM which teacher-NOM PPC what.kind pen-INSTR COP-INF-ACC
ni mede-ye geǰü sana-ǰu bai-na.
PPC know-IMP that hope-ADVL AUX-NPST
'lit. I hope to know which teacher what kind of pen.'

(162) a. Batu-Ø nigen čaγ-tu nige γaǰar-ača γurban-debter nom-i
Batu-NOM one time-DAT one place-ABL three-CL book-ACC
ǰigele-be.
borrow-PST
'Batu borrowed three books from a place at a certain time.'

b. Bi-Ø [xeǰiye χamiγa-ača bol-χu]-yi ni mede-xü ügei.
I-NOM when where-ABL COP-INF-ACC PPC know-INF not
'lit. I don't know from where when.'

The reduced questions in (161b) and (162b) take the sentences in (161a) and (162a), respectively, as their antecedents. The *wh*-remnants are case-marked in the same way as their respective correlates in the antecedent clauses. Note that the dative case (also termed dative-locative case), *du/dü/tu/tü,* is incorporated into adverbial interrogative pronouns *xeǰiye* 'when' and *χamiγa* 'where' in Mongolian (Sechenbaatar 2003). Therefore, there is no additional dative marker following the *wh*-phrase *xeǰiye* 'when' in (162b).

3.4.2.2 Adherence to the clause-mate condition

The clause-mate effect is observed in reduced embedded questions with multiple remnants in CM. Let us start our discussion with the following data.

(163) a. Tana-Ø [Batu-Ø nige ɣaǰar-ača nige yaɣuma-Ø ǰigele-be]
Tana-NOM Batu-NOM one place-ABL one thing-ACC borrow-PST
ge-ne,
say-NPST
'Tana says Batu borrowed a thing from a place,'

b. getele Mergen-Ø [χamiɣa-ača yaɣu-Ø bol-χu]-yi ni
but Mergen-NOM where-ABL what-ACC COP-INF-ACC PPC
čegeǰile-ǰü ügei.
remember-ADVL not
'lit. but Mergen doesn't remember what from where.'

The sentence in (163a) serves to antecede the reduced question in (163b). The correlates of the two remnants, *χamiɣa-ača* 'where-ABL' and *yaɣu-Ø* 'what-ACC,' are *nige ɣaǰar-ača* 'one place-ABL' and *nige yaɣuma-Ø* 'one thing-ACC,' both of which originate from the complement clause in (163a). The reduced question, in which the remnants are clause-mates, is acceptable.

Let us look at another example.

(164) a. Tana-Ø [Batu-yi nige xümün-dü nige yaɣuma-Ø ög-be]
Tana-NOM Batu-ACC one person-DAT one thing-ACC give-PST
ge-ne,
say-NPST
'Tana says Batu gave a thing to a person,'

b. getele Mergen-Ø [xen-dü yaγu-Ø bol-χu]-yi ni
but Mergen-NOM who-DAT what-ACC COP-INF-ACC PPC
čegeǰile-ǰü ügei.
remember-ADVL not
'but Mergen doesn't remember what to whom.'

The reduced question in (164b), which is anteceded by the sentence in (164a), is acceptable. The correlates of the remnant *wh*-phrases are both from the embedded clause in (164a).

Next, let us examine what happens when the correlates of the remnants originate from different clauses. Consider the data below:

(165) a. Nige xümün-Ø [Batu-yi nige γaǰar-ača nige nom-Ø
one person-NOM Batu-ACC one place-ABL one book-ACC
ǰigele-be] ge-ne,
borrow-PST say-NPST
'Someone says Batu borrowed a book from a place,'

b. getele Mergen-Ø [xen-Ø [Batu-yi χamiγa-ača nige nom-Ø
but Mergen-NOM who-NOM Batu-ACC where-ABL one book-ACC
ǰigele-be] ge-sen]-i (ni) čegeǰile-ǰü ügei.
borrow-PST say-PERF-ACC PPC remember-ADVL not
'but Mergen doesn't remember who said that Batu borrowed a book from where.'

c.* getele Mergen-Ø [xen-Ø χamiγa-ača bol-χu]-yi ni
but Mergen-NOM who-NOM where-ABL COP-INF-ACC PPC
čegeǰile-ǰü ügei.
remember-ADVL not
'lit. but Mergen doesn't remember who from where.'

The sentence in (165a) antecedes the full-fledged multiple question in (165b) and the reduced question in (165c). The reduced question consists of two remnants whose correlates are from different clauses. That is, *nige xümün* 'one person,' which is the correlate of *xen* 'who,' is from the matrix clause. On the other hand, *nige γaǰar-ača* 'one place-ABL,' which is the correlate of *χamiγa-ača* 'where-ABL,' comes from the embedded clause. The full-fledged question in (165b) with two in-situ *wh*-phrases is acceptable. However, the reduced question, in which the two remnants are not clause-mates, is not acceptable. The unacceptability of the reduced question in (165c) demonstrates that reduced questions with multiple remnants in CM adhere to the clause-mate condition (e.g., Abels and Dayal 2017; 2022).

Let us examine another set of data.

(166) a. Tana-Ø nige xümün-dü [Batu-Ø Sarana-du nige
Tana-NOM one person-DAT Batu-NOM Sarana-DAT one
yaγuma-Ø ög-be geǰü] xele-be,
thing-ACC give-PST COMP say-PST
'Tana told one person that Batu gave a thing to Sarana,'

b. getele Mergen-Ø [Tana-Ø xen-dü [Batu-Ø Sarana-du
but Mergen-NOM Tana-NOM who-DAT Batu-NOM Sarana-DAT
yaγu-Ø ög-be geǰü] xele-gsen]-i (ni) čegeǰile-ǰü ügei.
what-ACC give-PST COMP say-PERF-ACC PPC remember-ADVL not
'but Mergen doesn't remember whom Tana told that Batu gave what to Sarana.'

c.* getele Mergen-Ø [xen-dü yaγu-Ø bol-χu]-yi ni
but Mergen-NOM who-DAT what-ACC COP-INF-ACC PPC
čegeǰile-ǰü ügei.
remember-ADVL not
'lit. but Mergen doesn't remember whom what.'

The sentence in (166a) serves to antecede the complete multiple question in (166b) and the reduced question in (166c). The full-fledged multiple question is acceptable with two in-situ *wh*-phrases. The reduced question, however, is not acceptable. The data in (166) consolidate the observation that reduced questions with multiple remnants are faithful to the clause-mate condition.

3.4.2.3 The island-insensitivity effect

The focus of this subsection is to examine whether reduced embedded questions with multiple remnants in CM are sensitive to island effects. Let us start our discussion with cases involving the adjunct island. See the example (167) below.

(167) a. Mergen-Ø [Baɣatur-Ø/i Tana-tai ǰoɣuɣda-ɣsan
Mergen-NOM Baɣatur-NOM/ACC Tana-COM.POSTP chat-PERF
(učir)-ača] masi aɣurla-ba.
reason-ABL very displease-PST
'Mergen was very displeased because Baɣatur chatted with Tana.'

b.* Tana-tai$_i$ Mergen-Ø [Baɣatur-Ø/i t_i ǰoɣuɣda-ɣsan
Tana-COM.POSTP Mergen-NOM Baɣatur-NOM/ACC chat-PERF
(učir)-ača] masi aɣurla-ba.
reason-ABL very displease-PST
'lit. With Tana, Mergen was very displeased because Baɣatur chatted.'

The sentence in (167a) contains an adverbial clause, indicated with brackets. Movement of an element out of the adverbial clause renders the sentence unacceptable, as shown in (167b). Adverbial clauses constitute islands for movement in CM, as discussed in section 3.2 of this chapter.

Now let us consider the reduced question in (168) below.

(168) a. Mergen-Ø [nige xüü-Ø nige xeüxen-tei ǰoɣuɣda-ɣsan
Mergen-NOM one boy-NOM one girl-COM.POSTP chat-PERF
(učir)-ača] masi aɣurla-ba,
reason-ABL very displease-PST
'Mergen was very displeased because some boy chatted with some girl,'

b. bi-Ø [Mergen-ü [ali xüü-Ø (ni) ali xeüxen-tei
I-NOM Mergen-GEN which boy-NOM PPC which girl-COM.POSTP
ǰoγuγda-γsan (učir)-ača] masi aγurla-γsan]-i (ni) γaiχa-ǰu
chat-PERF reason-ABL very displease-PERF-ACC PPC wonder-ADVL
bai-na.
AUX-NPST
'lit. I wonder which boy Mergen was very displeased because chatted with which girl.'

c. bi-Ø [ali xüü-Ø (ni) ali xeüxen-tei bol-χu]-yi
I-NOM which boy-NOM PPC which girl-COM.POSTP COP-INF-ACC
ni γaiχa-ǰu bai-na.
PPC wonder-ADVL AUX-NPST
'I wonder which boy with which girl.'

The sentence in (168a) antecedes the full-fledged embedded multiple *wh*-question in (168b) and the reduced question in (168c). (168b) containing the adjunct island with two in-situ *wh*-phrases is acceptable. The reduced question, in which the two *wh*-phrases originate from the same adjunct island, is acceptable.

Next, let us consider the appositive clause island in CM (e.g., Maki, Bao, and Hasebe 2015). First, let us take a look at the appositive clause in (169).

(169) a. Bi-Ø [Batu-Ø/yin/yi nige baγsi-ača tere čiχula
1SG-NOM Batu-NOM/GEN/ACC one teacher-ABL that important
asaγulta-yi asaγu-γsan] čuurχal-i (ni) sonus-ba.
question-ACC ask-PERF.ADN rumor-ACC PPC hear-PST
'I heard the rumor that Batu asked a teacher that important question.'

b.* Tere čiχula asaγulta-yi_i bi-Ø [Batu-Ø/yin/yi
that important question-ACC 1SG-NOM Batu-NOM/GEN/ACC
nige baγsi-ača t_i asaγu-γsan] čuurχal-i (ni) sonus-ba.
one teacher-ABL ask-PERF.ADN rumor-ACC PPC hear-PST
'lit. That important question, I heard the rumor that Batu asked a teacher.'

As shown in (169a), there is no relative pronoun in appositive clauses in CM. In addition, the subject can be marked nominative, genitive, or accusative. Lastly, the PPC can optionally appear. According to my study, appositive clauses constitute islands for movement in CM, as illustrated in (169b). When the object *tere čiχula asaγulta-yi* 'that important question-ACC' is moved out of the appositive clause, the sentence becomes unacceptable. Since clause-internal scrambling and long-distance scrambling are both allowed in Mongolian (Sakamoto 2012; 2017; Öztürk 2013; Maki et al. 2016; Gong 2022), the unacceptability of moving an element out of appositive clauses indicates that appositive clauses constitute islands.

Let us look at another example.

(170) a. Tana-Ø [Mergen-i Anar-tai Begeǰing-dü ǰuγača-
Tana-NOM Mergen-ACC Anar-COM.POSTP Beijing-DAT travel-
γsan] čuurχal-i sonus-ba.
PERF.ADN rumor-ACC hear-PST
'Tana heard the rumor that Mergen traveled with Anar in Beijing.'

b.* Anar-tai$_i$ Tana-Ø [Mergen-i t_i Begeǰing-dü ǰuγača-
Anar-COM.POSTP Tana-NOM Mergen-ACC Beijing-DAT travel-
γsan] čuurχal-i sonus-ba.
PERF.ADN rumor-ACC hear-PST
'lit. With Anar, Tana heard the rumor that Mergen traveled in Beijing.'

The sentence in (170a) is acceptable with an appositive clause. When an element is moved out of the appositive clause, as shown in (170b), the resulting sentence is not acceptable. The examples in (169b) and (170b) reveal that appositive clauses constitute islands for movement in CM.

Now let us look at the reduced question involving the appositive clause island in (171) below.

(171) a. Tana-Ø [Mergen-i nige xeüxen-tei nige γaǰar-tu
Tana-NOM Mergen-ACC one girl-COM.POSTP one place-DAT
ǰuγača-γsan] čuurχal-i sonus-ba,
travel-PERF.ADN rumor-ACC hear-PST
'Tana heard the rumor that Mergen traveled with a girl at a place,'

b. bi-Ø [Tana-yin [Mergen-i ali xeüxen-tei χamiγa
I-NOM Tana-GEN Mergen-ACC which girl-COM.POSTP where
ǰuγača-γsan] čuurχal-i sonus-uγsan]-i (ni) masi γaiχa-ǰu
travel-PERF.ADN rumor-ACC hear-PERF-ACC PPC very wonder-ADVL
bai-na.
AUX-NPST
'lit. I wonder with which girl Tana heard the rumor that Mergen traveled where.'

c. bi-Ø [ali xeüxen-tei χamiγa bol-χu]-yi ni masi
I-NOM which girl-COM.POSTP where COP-INF-ACC PPC very
γaiχa-ǰu bai-na.
wonder-ADVL AUX-NPST
'lit. I wonder with which girl where.'

The sentence in (171a) serves as the antecedent for the full-fledged multiple question in (171b) and the reduced question in (171c). (171b) containing an appositive clause that has two in-situ *wh*-phrases is acceptable. The reduced question in (171c) is acceptable. That RQMW in (168) and (171) are acceptable shows that RQMW in CM are insensitive to island effects.

3.4.2.4 The superiority effect

My study shows that reduced embedded questions with multiple remnants in CM adhere to the

superiority effect.[13] Consider the data below:

(172) a. Man-u anggi-yin nige xüü-Ø ni nige xeüxen-dü duratai
2PL-GEN class-GEN one boy-NOM PPC one girl-DAT fond
bol-ba.
be-PST
'A boy in our class was fond of a girl.'

b. Bi-Ø [xen-Ø ni xen-dü bol-χu]-yi ni mede-ye geǰü
I-NOM who-NOM PPC who-DAT COP-INF-ACC PPC know-IMP that
sana-ǰu bai-na.
hope-ADVL AUX-NPST
'I wonder who of whom.'

c.?* Bi-Ø [xen-dü xen-Ø ni bol-χu]-yi ni mede-ye
I-NOM who-DAT who-NOM PPC COP-INF-ACC PPC know-IMP
geǰü sana-ǰu bai-na.
that hope-ADVL AUX-NPST
'lit. I wonder of whom who.'

The sentence in (172a) is the antecedent of the reduced question in (172b) with two *wh*-remnants. In (172a), the subject correlate *nige xüü* 'one boy' precedes the second correlate *nige xeüxen-dü* 'one girl-DAT.' The reduced question in (172b), in which the subject *wh*-remnant *xen* 'who' precedes the second *wh*-remnant *xen-dü* 'who-DAT,' is acceptable. On the other hand, the

[13] Note that this subsection does not intend to provide an exhaustive discussion on superiority effects, which is left for future studies.

reduced question becomes quite degraded when the order of the remnants does not conform to that of their correlates in the antecedent clause, as shown in (172c). The comparison between (172b) and (172c) shows that RQMW in CM conform to the superiority effect (e.g., Abels and Dayal 2022).

3.4.3 Analyses

This subsection focuses on the analysis of truncated embedded questions with multiple remnants in CM. Firstly, I argue that RQMW in CM can be analyzed in terms of the reduced cleft analysis. Then, I provide arguments against analyzing RQMW in terms of the sluicing analysis, the pseudo-sluicing analysis, and the reduced pseudo-cleft analysis.

3.4.3.1 The reduced cleft analysis

I argue that reduced embedded questions with multiple remnants in CM can be analyzed in terms of the reduced cleft analysis. Let us start our discussion by looking at the following data.

(173)	a.	Batu-Ø	nige	xümün-dü	yaɣuma-Ø	ög-be,
		Batu-NOM	one	person-DAT	thing-ACC	give-PST
		‘Batu gave a thing to a person,’				

b. gebečü bi-Ø [xen-dü yaγu-Ø bol-χu]-yi ni mede-xü
but I-NOM who-DAT what-ACC COP-INF-ACC PPC know-INF
ügei.
not
'but I don't know what to whom.'

c. gebečü bi-Ø [[Batu-yin öggü-gsen] ni xen-dü yaγu-Ø
but I-NOM Batu-GEN give-PERF.ADN PPC who-DAT what-ACC
bol-χu]-yi (ni) mede-xü ügei.
COP-INF-ACC PPC know-INF not
'lit. but I don't know what to whom it was that Batu gave.'

d. gebečü bi-Ø [[Batu-yin öggü-gsen] ni xen-dü yaγu-Ø
but I-NOM Batu-GEN give-PERF.ADN PPC who-DAT what-ACC
bol-χu]-yi (ni) mede-xü ügei
COP-INF-ACC PPC know-INF not

The sentence in (173a) antecedes the reduced question in (173b) and the multiple cleft sentence in (173c). The reduced question in (173b) consists of two NP remnants and the copula *bol*. When the presuppositional clause in (173c) is elided, indicated with grey shading in (173d), the reduced question in (173b) is derived. As discussed in section 3.3, eliding the presuppositional clauses of embedded cleft sentences, which function as the subjects of the embedded clauses, is allowed in CM since the language independently allows subject ellipsis.

Let us look at another set of data.

(174) a. Batu-Ø nige γaǰar-tu nige bir-i nige xeüxen-dü xürge-be,
Batu-NOM one place-DAT one pen-ACC one girl-DAT give-PST
'Batu gave a certain pen to a girl at a place,'

b. gebečü bi-Ø [χamiγa yamar xeüxen-dü bol-χu]-yi ni
but I-NOM where which girl-DAT COP-INF-ACC PPC
mede-xü ügei.
know-INF not
'lit. but I don't know to which girl where.'

c. gebečü bi-Ø [[Batu-yin nige bir-i xürge-gsen] ni
but I-NOM Batu-GEN one pen-ACC give-PERF.ADN PPC
χamiγa yamar xeüxen-dü bol-χu]-yi (ni) mede-xü ügei.
where which girl-DAT COP-INF-ACC PPC know-INF not
'lit. but I don't know to which girl where it was that Batu gave a certain pen.'

d. gebečü bi-Ø [[Batu-yin nige bir-i xürge-gsen] ni
but I-NOM Batu-GEN one pen-ACC give-PERF.ADN PPC
χamiγa yamar xeüxen-dü bol-χu]-yi (ni) mede-xü ügei
where which girl-DAT COP-INF-ACC PPC know-INF not

The sentence in (174a) is the antecedent of the reduced embedded question in (174b) and the full-fledged embedded multiple cleft sentence in (174c). When subject ellipsis is applied to (174c), as in (174d), the reduced question in (174b) is derived. As shown in (173-174), the reduced cleft analysis can explain cases of RQMW with NP *wh*-phrases and adverbial *wh*-phrases, which is not surprising since both types of *wh*-phrases can appear as pivots in multiple cleft sentences in CM. Moreover, the *wh*-remnants in the reduced questions are accompanied

by case markers. Similarly, *wh*-pivots in the multiple cleft sentences are accompanied by case markers.

As discussed in the previous section, truncated embedded clauses in CM do not allow the appearance of multiple non-*wh*-remnants. This observation can be explained by the reduced cleft analysis. Consider the data below:

(175) a. Batu-Ø [Mergen-i očügedür Xöxeχota-du siraγsan χonin
Batu-NOM Mergen-ACC yesterday Hohhot-DAT roasted sheep
miχa-Ø ide-be geǰü] üǰe-ǰü bai-na,
meat-ACC eat-PST COMP think-ADVL AUX-NPST
'Batu thinks that Mergen ate roasted lamb in Hohhot yesterday,'

b.* gebečü bi-Ø [[Mergen-ü Xöxeχota-du ide-gsen] ni
but I-NOM Mergen-GEN Hohhot-DAT eat-PERF.ADN PPC
urǰidur siraγsan üxer-ün miχa bol-una geǰü]
the.day.before.yesterday roasted cow-GEN meat COP-NPST COMP
üǰe-ǰü bai-na.
think-ADVL AUX-NPST
'lit. but I think it was roasted beef the day before yesterday that Mergen ate in Hohhot.'

c.* gebečü bi-Ø [urǰidur siraγsan üxer-ün miχa
but I-NOM the.day.before.yesterday roasted cow-GEN meat
bol-una geǰü] üǰe-ǰü bai-na.
COP-NPST COMP think-ADVL AUX-NPST
'lit. but I think it was roasted beef the day before yesterday.'

d. gebečü bi-Ø [[Mergen-ü Xöxeχota-du ide-gsen] ni
but I-NOM Mergen-GEN Hohhot-DAT eat-PERF.ADN PPC
urǰidur siraγsan üxer-ün miχa bol-una geǰü]
the.day.before.yesterday roasted cow-GEN meat COP-NPST COMP
üǰe-ǰü bai-na
think-ADVL AUX-NPST

The sentence in (175a) serves as the antecedent for the complete multiple cleft sentence in (175b) and the reduced embedded clause in (175c). (175c) is not acceptable with two non-*wh*-remnants. The unacceptability of (175c) can be straightforwardly accounted for by the fact that the corresponding multiple cleft sentence is unacceptable with two non-*wh*-remnants, as discussed in section 3.2.4 of this chapter.

In addition, the unacceptability of the presence of heterogenous remnants in RQMW in CM can be explicated by the reduced cleft analysis. See the data below.

(176) a. Mergen-Ø edür bolγan nige arbin xümün-tei
Mergen-NOM day every one many person-COM.POSTP
aγulǰa-na,
meet-NPST
'Mergen meets with many people every day,'

b.* bi-Ø [urǰidur xen xen-tei bol-χu]-yi
I-NOM the.day.before.yesterday who who-COM.POSTP COP-INF-ACC
ni γaiχa-ǰu bai-na.
PPC wonder-ADVL AUX-NPST

‘lit. I wonder with whom (plural) the day before yesterday.’

c.* bi-Ø [[Mergen-ü aγulǰa-γsan] ni urǰidur xen
I-NOM Mergen-GEN meet-PERF.ADN PPC the.day.before.yesterday who
xen-tei bol-χu]-yi (ni) γaiχa-ǰu bai-na.
who-COM.POSTP COP-INF-ACC PPC wonder-ADVL AUX-NPST
‘lit. I wonder with whom (plural) the day before yesterday it was that Batu met.’

d. bi-Ø [[Mergen-ü aγulǰa-γsan] ni urǰidur xen
I-NOM Mergen-GEN meet-PERF.ADN PPC the.day.before.yesterday who
xen-tei bol-χu]-yi (ni) γaiχa-ǰu bai-na
who-COM.POSTP COP-INF-ACC PPC wonder-ADVL AUX-NPST

The sentence in (176a) antecedes the truncated embedded clause in (176b) and the full-fledged multiple cleft sentence in (176c). Neither the truncated clause nor its full-fledged counterpart is acceptable.

Additionally, that the reduced questions adhere to the clause-mate condition can be explicated by the reduced cleft analysis because multiple cleft sentences in the language are faithful to the clause-mate condition. See the data below.

(177) a. Tana-Ø Mergen-dü [Batu-Ø nige xümün-dü nige
Tana-NOM Mergen-DAT Batu-NOM one person-DAT one
yabudal-Ø medegde-be geǰü] xele-be.
thing-ACC inform-PST COMP say-PST
‘Tana told Mergen that Batu informed one person of a thing.’

b. Bi-Ø [[Tana-yin Mergen-dü [Batu-Ø e_i e_j medegde-be
I-NOM Tana-GEN Mergen-DAT Batu-NOM inform-PST
geǰü] xele-gsen] ni xen-dü$_i$ yaγu-Ø$_j$ bol-χu]-yi (ni)
COMP say-PERF.ADN PPC who-DAT what-ACC COP-INF-ACC PPC
mede-ye geǰü sana-ǰu bai-na.
know-IMP that hope-ADVL AUX-NPST
'lit. I hope to know who of what it was that Tana told Mergen that Batu informed.'

c. Bi-Ø [xen-dü yaγu-Ø bol-χu]-yi ni mede-ye geǰü
I-NOM who-DAT what-ACC COP-INF-ACC PPC know-IMP that
sana-ǰu bai-na.
hope-ADVL AUX-NPST
'I hope to know who of what.'

d. Bi-Ø [[Tana-yin Mergen-dü [Batu-Ø e_i e_j medegde-be
I-NOM Tana-GEN Mergen-DAT Batu-NOM inform-PST
geǰü] xele-gsen] ni xen-dü$_i$ yaγu-Ø$_j$ bol-χu]-yi (ni)
COMP say-PERF.ADN PPC who-DAT what-ACC COP-INF-ACC PPC
mede-ye geǰü sana-ǰu bai-na
know-IMP that hope-ADVL AUX-NPST

The embedded cleft sentence in (177b) and the reduced question in (177c) take the sentence in (177a) as their antecedent. The correlates of the *wh*-pivots in (177b) and the *wh*-remnants in (177c) are *nige xümün-dü* 'one person-DAT' and *nige yabudal-Ø* 'one thing-ACC,' both of which belong to the complement clause in (177a). Followingly, the two *wh*-pivots in (177b) are both from the complement clause. The multiple cleft sentence in (177b) is acceptable. When subject

ellipsis is applied to (177b), indicated with grey shading in (177d), the reduced question in (177c) is obtained and is acceptable.

Next, let us consider a case in which the clause-mate condition is not obeyed. See the data in (178) below.

(178) a. Tana-Ø nige xümün-dü [Batu-Ø Sarana-du nige
Tana-NOM one person-DAT Batu-NOM Sarana-DAT one
yabudal-Ø medegde-be geǰü] xele-be.
thing-ACC inform-PST COMP say-PST
'Tana told one person that Batu informed Sarana of a thing.'

b.* Bi-Ø [[Tana-yin e_i [Batu-Ø Sarana-du e_j medegde-be geǰü]
I-NOM Tana-GEN Batu-NOM Sarana-DAT inform-PST COMP
xele-gsen] ni xen-dü$_i$ yaγu-Ø$_j$ bol-χu]-yi (ni) mede-ye
say-PERF.ADN PPC who-DAT what-ACC COP-INF-ACC PPC know-IMP
geǰü sana-ǰu bai-na.
that hope-ADVL AUX-NPST
'lit. I hope to know who of what it was that Tana told that Batu informed Sarana.'

c.* Bi-Ø [xen-dü yaγu-Ø bol-χu]-yi ni mede-ye
I-NOM who-DAT what-ACC COP-INF-ACC PPC know-IMP
geǰü sana-ǰu bai-na.
that hope-ADVL AUX-NPST
'lit. I hope to know who of what.'

d. Bi-Ø [[Tana-yin e_i [Batu-Ø Sarana-du e_j medegde-be geǰü]
I-NOM Tana-GEN Batu-NOM Sarana-DAT inform-PST COMP
xele-gsen] ni xen-dü$_i$ yaγu-Ø$_j$ bol-χu]-yi (ni) mede-ye
say-PERF.ADN PPC who-DAT what-ACC COP-INF-ACC PPC know-IMP
geǰü sana-ǰu bai-na
that hope-ADVL AUX-NPST

The sentence in (178a) is intended to antecede the embedded multiple cleft sentence in (178b) and the reduced question in (178c). The correlates of the *wh*-pivots and *wh*-remnants do not belong to the same clause. That is, *nige xümün-dü* 'one person-DAT' is from the matrix clause in (178a), and *nige yabudal-Ø* 'one thing-ACC' is from the complement clause in (178a). Correspondingly, the multiple cleft sentence is not acceptable with the *wh*-pivots not originating from the same clause. Since (178b) is not acceptable, it is not surprising that the reduced question is not acceptable. The comparison between (177) and (178) shows that violation of the clause-mate condition leads to unacceptable reduced questions, which can be captured by the reduced cleft analysis.

Now let us explain the observation that RQMW in CM are insensitive to island effects. Let us first consider the cleft sentence in (179), which involves the relative clause island.

(179) * [Mergen-ü [$_{\text{relative clause}}$ __ nom-i xürge-gsen] xümün-i
Mergen-GEN book-ACC give-PERF.ADN person-ACC
ol-ǰu üǰe-gsen] ni xen-dü bol-χu bui?
AUX-ADVL see-PERF.ADN PPC who-DAT COP-INF Q.PRT
'lit. To whom was it that Mergen saw the person that gave a certain book __?'

In the cleft sentence in (179), the *wh*-pivot is originated from the relative clause, which constitutes islands for movement in CM (Aravind 2021; Bai and Takahashi 2023a). The cleft sentence is completely degraded, indicating that the cleft construction in CM is sensitive to island effects (Bao 2015; Sakamoto 2017).

Let us look at another example involving the adjunct island.

(180) * [Batu-yin [adverbial clause Suruna-Ø __ χairatai (učir)-ača]
Batu-GEN Suruna-NOM fond reason-ABL
aγurla-γsan] ni xen-dü bol-χu bui?
displease-PERF.ADN PPC who-DAT COP-INF Q.PRT
'lit. Of whom was it that Batu was displeased because Suruna was fond __?'

In the cleft sentence in (180), the *wh*-pivot originates from the adverbial clause, which constitutes islands for movement in CM (Bai and Takahashi 2023a). The cleft sentence is completely degraded. The data in (179-180) show that the cleft construction in CM is sensitive to island effects.

As discussed in section 3.4.2, RQMW in CM are insensitive to island effects, which can be explained by the reduced cleft analysis. Consider (181):

(181) a. Mergen-Ø [nige xüü-Ø nige xeüxen-tei ǰoγuγda-γsan
Mergen-NOM one boy-NOM one girl-COM.POSTP chat-PERF
(učir)-ača] masi aγurla-ba,
reason-ABL very displease-PST

‘Mergen was very displeased because some boy chatted with some girl,’

b. bi-Ø [ali xüü-Ø (ni) ali xeüxen-tei bol-χu]-yi
I-NOM which boy-NOM PPC which girl-COM.POSTP COP-INF-ACC
ni γaiχa-ǰu bai-na.
PPC wonder-ADVL AUX-NPST
‘I wonder which boy with which girl.’

c.* bi-Ø [[Mergen-ü [__$_i$ __$_j$ ǰoγuγda-γsan (učir)-ača]
I-NOM Mergen-GEN chat-PERF reason-ABL
masi aγurla-γsan] ni ali xüü-Ø (ni)$_i$
very displease-PERF.ADN PPC which boy-NOM PPC
ali xeüxen-tei$_j$ bol-χu]-yi (ni) γaiχa-ǰu bai-na.
which girl-COM.POSTP COP-INF-ACC PPC wonder-ADVL AUX-NPST
‘lit. I wonder which boy with which girl it was that Mergen was very displeased because chatted.’

d. bi-Ø [[Mergen-ü [__$_i$ __$_j$ ǰoγuγda-γsan (učir)-ača]
I-NOM Mergen-GEN chat-PERF reason-ABL
masi aγurla-γsan] ni ali xüü-Ø (ni)$_i$
very displease-PERF.ADN PPC which boy-NOM PPC
ali xeüxen-tei$_j$ bol-χu]-yi (ni) γaiχa-ǰu bai-na
which girl-COM.POSTP COP-INF-ACC PPC wonder-ADVL AUX-NPST

The sentence in (181a) antecedes the reduced question in (181b) and the corresponding full-fledged cleft sentence in (181c). The reduced question, in which the two *wh*-phrases originate from the same adjunct island, is acceptable. The multiple cleft sentence in (181c), on the other

hand, is not acceptable with the two *wh*-phrases originating from the adjunct island. The reduced question is derived when the presuppositional clause of the cleft sentence in (181c) is elided, indicated with grey shading in (181d). Since the adjunct island is inside the presuppositional clause of the cleft sentence, subject ellipsis may repair the island violation just as sluicing remedies island violations, as discussed in chapter 2 of this dissertation (e.g., Ross 1969; Merchant 2001).

Lastly, let us explain the observation that RQMW in CM exhibit the superiority effect. See the example (182) below.

(182) a. Man-u anggi-yin nige xüü-Ø ni nige xeüxen-dü duratai
2PL-GEN class-GEN one boy-NOM PPC one girl-DAT fond
bol-ba.
be-PST
'A boy in our class was fond of a girl.'

b. Bi-Ø [xen-Ø ni xen-dü bol-χu]-yi ni mede-ye geǰü
I-NOM who-NOM PPC who-DAT COP-INF-ACC PPC know-IMP that
sana-ǰu bai-na.
hope-ADVL AUX-NPST
'I wonder who of whom.'

c.?* Bi-Ø [xen-dü xen-Ø ni bol-χu]-yi ni mede-ye
I-NOM who-DAT who-NOM PPC COP-INF-ACC PPC know-IMP
geǰü sana-ǰu bai-na.
that hope-ADVL AUX-NPST
'lit. I wonder of whom who.'

The sentence in (182a) antecedes the reduced questions in (182b-c). (182b), in which the order of the *wh*-remnants conforms to that of their respective correlates in (182a), is acceptable. On the other hand, (182c), where the order of the remnants is not in accordance with that of their correlates in (182a), is very degraded. This comparison can be captured by the reduced cleft analysis since their cleft counterparts also exhibit the superiority effect.

(183) a. Bi-Ø [[duratai bol-uγsan] ni xen-Ø ni xen-dü
I-NOM fond be-PERF.ADN PPC who-NOM PPC who-DAT
bol-χu]-yi (ni) mede-ye geǰü sana-ǰu bai-na.
COP-INF-ACC PPC know-IMP that hope-ADVL AUX-NPST
'lit. I wonder who of whom it was that was fond.'

b. Bi-Ø [[duratai bol-uγsan] ni xen-Ø ni xen-dü
I-NOM fond be-PERF.ADN PPC who-NOM PPC who-DAT
bol-χu]-yi (ni) mede-ye geǰü sana-ǰu bai-na
COP-INF-ACC PPC know-IMP that hope-ADVL AUX-NPST

c.?* Bi-Ø [[duratai bol-uγsan] ni xen-dü xen-Ø ni
I-NOM fond be-PERF.ADN PPC who-DAT who-NOM PPC
bol-χu]-yi (ni) mede-ye geǰü sana-ǰu bai-na.
COP-INF-ACC PPC know-IMP that hope-ADVL AUX-NPST
'lit. I wonder of whom who it was that was fond.'

d.	Bi-Ø	[[duratai	bol-uγsan]	ni	xen-dü	xen-Ø	ni	
	I-NOM	fond	be-PERF.ADN	PPC	who-DAT	who-NOM	PPC	
	bol-χu]-yi	(ni)	mede-ye	geǰü	sana-ǰu	bai-na		
	COP-INF-ACC	PPC	know-IMP	that	hope-ADVL	AUX-NPST		

The sentence in (182a) antecedes the embedded cleft sentences in (183a) and (183c). The cleft sentence in (183a) is acceptable with the order of the *wh*-pivots conforming to the order of their respective correlates in (182a). The cleft sentence in (183c), on the other hand, is not acceptable because the order of the *wh*-pivots is not in accordance with that of their correlates in (182a). When we apply subject ellipsis to (183a), as shown in (183b), we obtain the reduced question in (182b). When applying subject ellipsis to (183c), as illustrated in (183d), we get the reduced question in (182c). Since the full-fledged counterpart of (182c) is not acceptable, (182c) is also not acceptable.

This subsection has detailed the reduced cleft analysis accounting for reduced embedded questions with multiple remnants in CM. This analysis can account for all the properties of reduced embedded questions discussed in section 3.4.2.

3.4.3.2 Arguments against the other analyses

The previous subsection has illustrated the reduced cleft analysis accounting for reduced embedded questions with multiple remnants in CM. Readers may wonder whether RQMW in CM can be explained by other analyses. The possible choices include the sluicing analysis, the pseudo-sluicing analysis, and the reduced pseudo-cleft analysis. This subsection aims to

provide arguments against the analyses mentioned above.

Let us start our discussion with the reduced pseudo-cleft analysis. As discussed in section 3.2.5 of this chapter, the pseudo-cleft construction in CM does not allow the presence of multiple pivots. Accordingly, it would be difficult to analyze reduced questions with multiple remnants in terms of the pseudo-cleft analysis. Additionally, pivots in the pseudo-cleft sentences are not case-marked. However, remnants in RQMW in CM must be accompanied by case markers. See (184) for an illustration.

(184) a. Batu-Ø nige γaǰar-ača nige xümün-dü beleg-Ø ilege-be,
Batu-NOM one place-ABL one person-DAT present-ACC send-PST
'Batu sent a present to a person from a place,'

b. gebečü bi-Ø [χamiγa-ača xen-dü bol-χu]-yi ni mede-xü
but I-NOM where-ABL who-DAT COP-INF-ACC PPC know-INF
ügei.
not
'lit. but I don't know to whom from where.'

c.* gebečü bi-Ø [χamiγa xen bol-χu]-yi ni mede-xü ügei.
but I-NOM where who COP-INF-ACC PPC know-INF not
'lit. but I don't know who where.'

d.* gebečü bi-Ø [[Batu-yin beleg-Ø ilege-gsen] ni χamiγa
but I-NOM Batu-GEN present-ACC send-PERF.ADN PPC where
xen bol-χu]-yi (ni) mede-xü ügei.
who COP-INF-ACC PPC know-INF not
'lit. but I don't know who where the person Batu sent a present to was.'

e. gebečü bi-Ø [[Batu-yin beleg-Ø ilege-gsen] ni χamiγa
but I-NOM Batu-GEN present-ACC send-PERF.ADN PPC where
xen bol-χu]-yi (ni) mede-xü ügei
who COP-INF-ACC PPC know-INF not

The sentence in (184a) is the antecedent of the reduced question in (184b) with two case-marked *wh*-remnants. The reduced question is completely degraded when the remnants are not case-marked, as in (184c). The corresponding full-fledged pseudo-cleft sentence is shown in (184d), which is not acceptable. Applying subject ellipsis to (184d), we obtain (184c), which is not acceptable. This brief discussion reveals that the reduced pseudo-cleft analysis cannot account for RQMW in CM.

Next, the pseudo-sluicing analysis does not seem to be a viable analysis accounting for RQMW in CM. Let us consider the data below.

(185) a. Batu-Ø nige γaǰar-ača nige xümün-dü beleg-Ø ilege-be,
Batu-NOM one place-ABL one person-DAT present-ACC send-PST
'Batu sent a present to a person from a place,'

b. gebečü bi-Ø [χamiγa-ača xen-dü bol-χu]-yi ni mede-xü
but I-NOM where-ABL who-DAT COP-INF-ACC PPC know-INF
ügei.
not
'lit. but I don't know to whom from where.'

c. gebečü bi-Ø [*pro* χamiγa-ača xen-dü bol-χu]-yi ni
but I-NOM where-ABL who-DAT COP-INF-ACC PPC
mede-xü ügei
know-INF not
'lit. but I don't know (it) was to whom from where'

d.* gebečü bi-Ø [*tere* *ni* χamiγa-ača xen-dü bol-χu]-yi
but I-NOM 3SG PPC where-ABL who-DAT COP-INF-ACC
(ni) mede-xü ügei.
PPC know-INF not
'lit. but I don't know it was to whom from where.'

The reduced question in (185b), which is anteceded by (185a), is acceptable with two case-marked remnants. In line with the pseudo-sluicing analysis, the reduced question is analyzed as (185c) with an empty pronominal subject. As predicted by the pseudo-sluicing analysis, the empty subject can alternate with the overt pronominal subject, as shown in (185d). The fact that (185d) is not acceptable indicates that the pseudo-sluicing analysis cannot accommodate cases of reduced questions with multiple remnants.

Lastly, let us consider the sluicing analysis. One argument against the sluicing analysis is that RQMW in CM contain the copula *bol*, which is difficult to explain under a sluicing analysis. See (186) for an illustration.

(186) a. Batu-Ø nige γaǰar-ača nige xümün-dü beleg-Ø ilege-be,
Batu-NOM one place-ABL one person-DAT present-ACC send-PST
'Batu sent a present to a person from a place,'

b. gebečü bi-Ø [tere-Ø χamiγa-ača xen-dü beleg-Ø
but I-NOM he-NOM where-ABL who-DAT present-ACC
ilege-gsen]-i (ni) mede-xü ügei.
send-PERF-ACC PPC know-INF not
'but I don't know to whom he sent a present from where.'

c. gebečü bi-Ø [χamiγa-ača xen-dü bol-χu]-yi ni mede-xü
but I-NOM where-ABL who-DAT COP-INF-ACC PPC know-INF
ügei.
not
'lit. but I don't know to whom from where.'

d. gebečü bi-Ø [$_{CP}$ χamiγa-ača$_i$ xen-dü$_j$ [$_{IP}$ tere-Ø t_i t_j
but I-NOM where-ABL who-DAT he-NOM
beleg-Ø ilege-gsen]]-i (ni) mede-xü ügei
present-ACC send-PERF-ACC PPC know-INF not

The sentence in (186a) is the antecedent of the embedded multiple question in (186b) and the reduced question in (186c). According to the PF deletion analysis of sluicing, the two *wh*-phrases are moved to the specifier position of CP, followed by IP deletion. Since the full-fledged *wh*-question does not contain the copula *bol*, the derived reduced question does not contain *bol*, as shown in (186d). Nevertheless, RQMW in CM contain the copula.

Let us look at another argument against the sluicing analysis. Consider the data below:

(187) a. Bi-Ø nige γaǰar-ača nige xümün-dü beleg-Ø ilege-be.
I-NOM one place-ABL one person-DAT present-ACC send-PST

‘I sent a present to a person from a place.’

b. Či-Ø [(minu) χamiγa-ača xen-dü beleg-Ø ilege-gsen]-i
you-NOM 1SG.GEN where-ABL who-DAT present-ACC send-PERF-ACC
(mini) mede-ye geǰü sana-ǰu bai-na uu?
1SG.PPC know-IMP that hope-ADVL AUX-NPST Q.PRT
‘Do you want to know to whom I sent a present from where?’

c.* Či-Ø [minu χamiγa-ača xen-dü beleg-Ø ilege-gsen]-i
you-NOM 1SG.GEN where-ABL who-DAT present-ACC send-PERF-ACC
ni mede-ye geǰü sana-ǰu bai-na uu?
3SG.PPC know-IMP that hope-ADVL AUX-NPST Q.PRT
‘Do you want to know to whom I sent a present from where?’

The sentence in (187a) functions to antecede the full-fledged embedded multiple questions in (187b-c). In the embedded questions, only the first-person PPC *mini* is allowed to appear because the subject of the embedded clause is a first-person pronoun.

Now let us construct reduced questions based on (187), as shown in (188).

(188) a. Bi-Ø nige γaǰar-ača nige xümün-dü beleg-Ø ilege-be.
I-NOM one place-ABL one person-DAT present-ACC send-PST
‘I sent a present to a person from a place.’

b.? Či-Ø [χamiγa-ača xen-dü]-yi **ni** mede-ye geǰü sana-ǰu
you-NOM where-ABL who-DAT-ACC 3SG.PPC know-IMP that hope-ADVL
bai-na uu?
AUX-NPST Q.PRT

‘lit. Do you want to know to whom from where?’

c. Či-Ø [χamiγa-ača xen-dü bol-χu]-yi **ni** mede-ye geǰü
you-NOM where-ABL who-DAT COP-INF-ACC 3SG.PPC know-IMP that
sana-ǰu bai-na uu?
hope-ADVL AUX-NPST Q.PRT
‘lit. Do you want to know to whom from where?’

d.* Či-Ø [χamiγa-ača xen-dü]-yi **mini** mede-ye geǰü sana-ǰu
you-NOM where-ABL who-DAT-ACC 1SG.PPC know-IMP that hope-ADVL
bai-na uu?
AUX-NPST Q.PRT
‘lit. Do you want to know to whom from where?’

e.* Či-Ø [χamiγa-ača xen-dü bol-χu]-yi **mini** mede-ye geǰü
you-NOM where-ABL who-DAT COP-INF-ACC 1SG.PPC know-IMP that
sana-ǰu bai-na uu?
hope-ADVL AUX-NPST Q.PRT
‘lit. Do you want to know to whom from where?’

The sentence in (188a) is the antecedent of the reduced questions in (188b-e). The reduced questions are acceptable when they are followed by the third-person PPC. In contrast, the reduced questions are completely degraded when followed by the first-person PPC *mini*. If the reduced questions in (188) were analyzed in line with the sluicing analysis, then the first-person PPC should appear in the reduced question, as illustrated in (189).

(189) či-Ø [$_{CP}$ χamiγa-ača$_i$ xen-dü$_j$ [$_{IP}$ (minu) t_i t_j beleg-Ø
you-NOM where-ABL who-DAT 1SG.GEN present-ACC
ilege-gsen]]-i mini mede-ye geǰü sana-ǰu bai-na
send-PERF-ACC 1SG.PPC know-IMP that hope-ADVL AUX-NPST
uu
Q.PRT
'Do you want to know to whom I sent a present from where'

As shown in (189), the two *wh*-remnants are moved into the specifier position of CP, followed by IP deletion. The resulting structure with the first-person PPC is not acceptable, as in (188d-e). Therefore, cases of reduced questions like (188) cannot be explicated by the sluicing analysis. The PPC following a reduced question functions to indicate the subject of the reduced question. In the case of (188), the acceptability of the third-person PPC suggests that the underlying subject of the reduced question is in the third person.

Before leaving this section, let us note that the acceptable reduced question in (188c) can be explained by the reduced cleft analysis, as shown in (190).

(190) a. Či-Ø [[minu beleg-Ø ilege-gsen] ni χamiγa-ača
you-NOM 1SG.GEN present-ACC send-PERF.ADN PPC where-ABL
xen-dü bol-χu]-yi (**ni**) mede-ye geǰü sana-ǰu
who-DAT COP-INF-ACC 3SG.PPC know-IMP that hope-ADVL
bai-na uu?
AUX-NPST Q.PRT
'lit. Do you want to know to whom from where it was that I sent a present?'

b. Či-Ø [[minu beleg-Ø ilege-gesen] ni χamiγa-ača
you-NOM 1SG.GEN present-ACC send-PERF.ADN PPC where-ABL
xen-dü bol-χu]-yi (**ni**) mede-ye geǰü sana-ǰu
who-DAT COP-INF-ACC 3SG.PPC know-IMP that hope-ADVL
bai-na uu
AUX-NPST Q.PRT

The sentence in (190a) is the full-fledged cleft counterpart of the reduced question in (188c). The reduced question with the third-person PPC is explained when subject ellipsis is applied to (190a), indicated with grey shading in (190b).

This subsection has argued against analyzing reduced embedded questions with multiple remnants in CM in terms of the reduced pseudo-cleft analysis, the pseudo-sluicing analysis, or the sluicing analysis.

3.5 Summary

The chapter has discussed reduced embedded single and multiple questions in CM. Reduced single questions can be accounted for by the pseudo-sluicing analysis, the reduced pseudo-cleft analysis, or the reduced cleft analysis. Each analysis has its advantages and disadvantages. The pseudo-sluicing analysis does not posit *wh*-movement in CM, a *wh*-in-situ language. It can account for the observation that reduced questions in CM can be used felicitously without linguistic antecedents. This analysis, however, cannot account for the availability of the sloppy interpretation in reduced questions. The reduced pseudo-cleft analysis also does not posit *wh*-movement in CM. It can explain the observed sloppy interpretation. This analysis, however,

cannot account for the fact that remnants in reduced questions can be accompanied by case markers because pivots in the pseudo-cleft sentences are not case-marked. The reduced cleft analysis can explain cases of reduced questions, in which the remnants are case-marked, because pivots in the cleft sentences are case-marked. The downside of this analysis is that it cannot straightforwardly explain the observation that reduced questions are insensitive to island effects because the cleft construction in CM is sensitive to island effects. Rather, it employs "repair by deletion" (e.g., Lasnik 1999; 2001) to explain the island insensitivity observed in reduced questions.

Turning to reduced embedded questions with multiple remnants, they cannot be explained by some analyses, including the pseudo-sluicing analysis, the reduced pseudo-cleft analysis, and the sluicing analysis. RQMW are best analyzed in terms of the reduced cleft analysis because RQMW show many parallel properties as the cleft construction in CM. In a word, reduced embedded questions in CM cannot be analyzed in a unitary manner. Several analyses are necessary in order to fully account for the observed data.

Before leaving this chapter, I note the limitations of this chapter. This chapter does not include the derivational processes of the cleft and multiple cleft construction in CM since they are beyond the scope of this chapter. Notably, there are aspects of the multiple cleft construction in CM that are interesting but difficult to explain. For example, my study shows that the multiple cleft construction in CM only allows *wh*-pivots. Non-*wh*-pivots cannot appear in the multiple cleft construction but can appear in the single cleft construction. These remaining questions are left for future studies.

Chapter 4 Reduced embedded questions in Uyghur

This chapter aims to study reduced embedded questions in Uyghur and proposes theoretical analyses to explicate the observed properties. This chapter consists of five sections. Section 4.1 illustrates some syntactic properties of Uyghur, laying a foundation for the following discussions on reduced questions in the language. Section 4.2 presents some constructions pertinent to the discussions on reduced questions. Section 4.3 details reduced embedded single *wh*-questions in Uyghur and argues that they can be analyzed in terms of the pseudo-sluicing analysis or the reduced cleft analysis. Section 4.4 discusses reduced embedded questions with multiple *wh*-phrases and proposes to analyze them in terms of an in-situ analysis. Finally, section 4.5 summarizes this chapter.

4.1 Some syntactic properties of Uyghur

4.1.1 Basic word order

The basic word order of simple sentences is SOV in Uyghur (Litip 2012; 2017). Consider the data below:

(1) Män-Ø yiğla-di-m.
1SG-NOM cry-PST-1SG
'I cried.'

(2) Män-Ø awu kitab-ni yaz-di-m.
1SG-NOM that book-ACC write-PST-1SG
'I wrote that book.'

As in (1), the subject precedes the verb in an intransitive sentence. The subject is marked with the nominative marker, which is assumed to be a zero morpheme in the language (Litip 2012). In a transitive sentence, as in (2), the subject precedes the object, which in turn precedes the verb. The object, *awu kitab* 'that book,' is accompanied by the accusative case marker *ni*.

Next, let us look at the word order in a ditransitive sentence, as in (3).

(3) Män-Ø saŋa bu sowğat-ni bär-di-m.
1SG-NOM 2SG.DAT this present-ACC give-PST-1SG
'I gave this present to you.'

In (3), the subject precedes the dative-marked indirect object, which precedes the accusative-marked direct object and the verb (Litip 2012).

4.1.2 Case-marking

Uyghur is a language with a rich case system (Litip 2012; 2013b; 2017). Uyghur features 10 cases, as shown in Table 1.

Table 1: Case markers in Uyghur

Nominative	-Ø
Genitive	-niŋ
Accusative	-ni
Dative	-ğa/-qa/-gä/-kä
Locative-Temporal	-da/-dä/-ta/-tä
Ablative	-din/-tin
Locative-Qualitative	-diki/-tiki
Limitative	-ğičä/-qičä/-gičä/-kičä
Similitude	-däk/-täk
Equivative	-čilik/-čä

(cited from Litip 2013b: 399)

As can be seen from Table 1, the nominative case has a zero morpheme. All the other cases have overt morphemes, and most of them have alternations, which depend on phonological processes, such as vowel and consonant harmony (Litip 2012; 2013b).

The accusative case-marking in Uyghur is worth noting. Whether or not the accusative case marker appears with an object is determined by the referentiality, definiteness, and specificity of the object (Litip 2012). Concretely, objects with high referentiality, such as definite NPs, NPs denoting [+human] features, and plural NPs, must be accompanied by the accusative marker, as illustrated in (4).

(4) a. Män-Ø awu kitab-ni yaz-di-m.
1SG-NOM that book-ACC write-PST-1SG

‘I wrote that book.’

b. Matematika oqutquči-si-Ø bir adäm-ni tänqid qil-di-Ø.
math teacher-3SG.POSS-NOM one person-ACC reprimand AUX-PST-3SG
‘The math teacher reprimanded a person.’

c. U-Ø nurğun kitab-lar-ni oqu-di-Ø.
3SG-NOM many book-PL-ACC read-PST-3SG
‘He read many books.’

The objects in (4a-c), i.e., the definite and specific NP in (4a), the NP denoting a human entity in (4b), and the plural NP in (4c), must be accompanied by the accusative marker.

Then, let us consider indefinite objects. When an object is indefinite but specific, it appears with the accusative marker, as shown in (5).

(5) Män-Ø mašina-ni häydä-di-m.
1SG-NOM car-ACC drive-PST-1SG
‘I drove a certain car.’

On the other hand, when an object is indefinite and non-specific, it is not case-marked (Litip 2012; Sugar 2019; Jenkins 2021), as in (6).

(6) Män-Ø mašina häydä-di-m.
1SG-NOM car drive-PST-1SG
‘I drove a car.’

The object in (6) is a weak indefinite phrase, which is not case-marked.

4.1.3 Agreement-marking

As can be observed from the examples (1-6), an agreement marker, which agrees with the person and number features of the subject and inflects in accordance with the tense and mood of the sentence, must appear at the end of a sentence in Uyghur (Litip 2012; 2017; Sugar 2019). See the agreement-marking patterns in Table 2.

Table 2: Agreement-marking patterns in the past and non-past tense

	Non-past tense	Past tense
1SG	-män	-m
2SG	-sän	-ŋ
2SG.HON	-siz	-ŋiz
2SG.RES	-la	-la
3SG	-Ø	-Ø
1PL	-miz	-duq
2PL	-silär	-ŋlar/-ŋlär
2PL.HON	-sizlär	-ŋizlar/-ŋizlär
2PL.RES	-la	-la
2PL.DEROG	-sän	-ŋ
3PL	-Ø	-Ø

(cited from Litip 2012: 305-306).

Next, let us see the usage of the agreement markers in specific examples, as shown in (7) and (8) below.

(7) a. Män-Ø/Sän-Ø/Siz-Ø/Sili-Ø yilan-din
1SG-NOM/2SG-NOM/2SG.HON-NOM/2SG.RES-NOM snake-ABL
qorq-i-män/sän/siz/la.
fear-NPST-1SG/2SG/2SG.HON/2SG.RES
'I/You/You (honorific)/You (respectful) fear snakes.'

b. U-Ø yilan-din qorq-idu-Ø.
3SG-NOM snake-ABL fear-NPST-3SG
'He fears snakes.'

c. Biz-Ø/Silär-Ø/Sizlär-Ø/Sänlär-Ø yilan-din qorq-i-miz/
1PL-NOM/2PL-NOM/2PL.HON-NOM/2PL.DEROG-NOM snake-ABL fear-NPST-1PL/
silär/sizlär/sän.
2PL/2PL.HON/2PL.DEROG
'We/You (plural)/You (plural, honorific)/You (plural, derogative) fear snakes.'

d. Ular-Ø yilan-din qorq-idu-Ø.
3PL-NOM snake-ABL fear-NPST-3PL
'They fear snakes.'

e. Härqaysiliri-Ø yilan-din qorq-i-la.
2PL.RES-NOM snake-ABL fear-NPST-2PL.RES
'You (plural, respectful) fear snakes.'

(8) a. Män-Ø/Sän-Ø/Siz-Ø/Sili-Ø/U-Ø bir
1SG-NOM/2SG-NOM/2SG.HON-NOM/2SG.RES-NOM/3SG-NOM one
adäm-ni tänqid qil-di-m/ŋ/ŋiz/la/Ø.
person-ACC reprimand AUX-PST-1SG/2SG/2SG.HON/2SG.RES/3SG
'I/You/You (honorific)/You (respectful)/He reprimanded a person.'

b. Biz-Ø bir adäm-ni tänqid qil-duq.
1PL-NOM one person-ACC reprimand AUX-PST.1PL
'We reprimanded a person.'

c. Silär-Ø/Sizlär-Ø/Ulär-Ø bir adäm-ni tänqid
2PL-NOM/2PL.HON-NOM/3PL-NOM one person-ACC reprimand
qil-di-ŋlar/ŋizlär/Ø.
AUX-PST-2PL/2PL.HON/3PL
'You (plural)/You (plural, honorific)/They reprimanded a person.'

d. Sänlär bir adäm-ni tänqid qil-iš-ti-ŋ.
2PL.DEROG one person-ACC reprimand AUX-RECP-PST-2PL.DEROG
'You (plural, derogative) reprimanded a person.'

e. Härqaysiliri-Ø bir adäm-ni tänqid qil-iš-ti-la.
2PL.RES-NOM one person-ACC reprimand AUX-RECP-PST-2PL.RES
'You (plural, respectful) reprimanded a person.'

The sentences in (7) illustrate the usage of the agreement markers in non-past tense, and those in (8) show the usage of the agreement markers in past tense (Litip 2013b).

4.1.4 Possessive-marking

This subsection discusses the genitive-possessive construction in Uyghur, where a possessor is marked genitive and a possessee is marked by a possessive agreement marker, which agrees in person and number with the possessor (Politzer-Ahles 2011). See Table 3 below for the possessive agreement marking patterns.

Table 3: Possessive agreement marking patterns

1SG	-m/-im/-um/-üm
2SG	-ŋ/-iŋ/-uŋ/-üŋ
2SG.HON	-ŋiz/-iŋiz
2SG.RES	-liri
3SG	-i/-si
1PL	-miz/-imiz
2PL	-ŋlar/-ŋlär/-iŋlar/-iŋlär/-uŋlar/-üŋlär
2PL.HON	-ŋizlar/-ŋizlär/-iŋizlar/-iŋizlär
2PL.RES	-liri
3PL	-i/-si

(cited from Litip 2012: 255).

Now let us see the possessive-marking patterns in specific examples in (9) below.[1]

[1] In Uyghur, when the genitive marker *niŋ* follows the first-person and second-person singular pronoun *män* and *sän*, a sound-changing process occurs (Litip 2012). The outputs are not *män-niŋ* or *sän-niŋ*, but *meniŋ* and *seniŋ*.

(9) a. Meniŋ Ingliz tili kitab-im yüt-üp
1SG.GEN English language book-1SG.POSS disappear-ADVL
kät-ti-Ø.
AUX-PST-3SG
'My English book got lost.'

b. Seniŋ Ingliz tili kitab-iŋ yüt-üp
2SG.GEN English language book-2SG.POSS disappear-ADVL
kät-ti-Ø.
AUX-PST-3SG
'Your English book got lost.'

c. Siz-niŋ Ingliz tili kitab-iŋiz yüt-üp
2SG.HON-GEN English language book-2SG.HON.POSS disappear-ADVL
kät-ti-Ø.
AUX-PST-3SG
'Your (honorific) English book got lost.'

d. Sili-niŋ Ingliz tili kitab-liri yüt-üp
2SG.RES-GEN English language book-2SG.RES.POSS disappear-ADVL
kät-ti-Ø.
AUX-PST-3SG
'Your (respectful) English book got lost.'

e. U-niŋ Ingliz tili kitab-i yüt-üp
3SG-GEN English language book-3SG.POSS disappear-ADVL
kät-ti-Ø.
AUX-PST-3SG

‘His English book got lost.’

f. Biz-niŋ Ingliz tili kitab-imiz yüt-üp

1PL-GEN English language book-1PL.POSS disappear-ADVL

kät-ti-Ø.

AUX-PST-3SG

‘Our English book got lost.’

g. Silär-niŋ Ingliz tili kitab-iŋlar yüt-üp

2PL-GEN English language book-2PL.POSS disappear-ADVL

kät-ti-Ø.

AUX-PST-3SG

‘Your (plural) English book got lost.’

h. Sizlär-niŋ Ingliz tili kitab-iŋizlär

2PL.HON-GEN English language book-2PL.HON.POSS

yüt-üp kät-ti-Ø.

disappear-ADVL AUX-PST-3SG

‘Your (plural, honorific) English book got lost.’

i. Härqaysiliri-niŋ Ingliz tili kitab-liri

2PL.RES-GEN English language book-2PL.RES.POSS

yüt-üp kät-ti-Ø.

disappear-ADVL AUX-PST-3SG

‘Your (plural, respectful) English book got lost.’

j. Ular-niŋ Ingliz tili kitab-i yüt-üp
3PL-GEN English language book-3PL.POSS disappear-ADVL
kät-ti-Ø.
AUX-PST-3SG
'Their English book got lost.'

The possessive agreement marking will be further discussed in this chapter.

4.1.5 *Wh*-in-situ

Uyghur is a *wh*-in-situ language (Litip 2012; 2017). Consider the data below:

(10) Murat-Ø Güli-gä nemä sowğa qil-di-Ø?
Murat-NOM Güli-DAT what present AUX-PST-3SG
'What did Murat give to Güli?'

(11) Murat-Ø kim-gä bir-tal zänjir sowğa qil-di-Ø?
Murat-NOM who-DAT one-CL necklace present AUX-PST-3SG
'To whom did Murat give a necklace?'

The direct object in (10) and the indirect object in (11) are *wh*-phrases, which stay in their respective object positions in lieu of moving to the edge of the clauses.

4.1.6 *Pro*-drop

Uyghur is a *pro*-drop language, allowing arguments such as subjects and objects not to be overtly expressed (Litip 2012). Considering the following data, where two speakers, A and B, engage in a conversation:

(12) A: Murat-Ø nemä oqu-di-Ø?
Murat-NOM what read-PST-3SG
'What did Murat read?'
B: *e* gezit oqu-di-Ø.
newspaper read-PST-3SG
'lit. *e* read newspapers.'

(13) A: Kim-Ø gezit oqu-di-Ø?
who-NOM newspaper read-PST-3SG
'Who read newspapers?'
B: Murat-Ø *e* oqu-di-Ø.
Murat-NOM read-PST-3SG
'lit. Murat read *e*.'

(14) A: Murat-Ø gezit oqu-di-Ø-mu?
Murat-NOM newspaper read-PST-3SG-Q.PRT
'Did Murat read newspapers?'
B: *e* *e* oqu-di-Ø.
read-PST-3SG
'lit. *e* read *e*.'

The subject in B's utterance in (12) is not overtly expressed (null arguments are indicated with

e) though it is clear in the context that it refers to the subject in A's utterance. Similarly, the object in (13B) and the subject and the object in (14B) are null, but the sentences are perfectly acceptable.

4.2 Some important constructions

This section details some constructions relevant to the discussions on reduced questions in Uyghur.

4.2.1 Subordinate clauses

This subsection considers complement clauses, relative clauses, and adverbial clauses in Uyghur.

4.2.1.1 Complement clauses

The discussion here focuses on complement clauses in Uyghur (e.g., Asarina and Hartman 2011). Let us first consider non-finite complement clauses containing non-finite predicates. See the example (15) below.

(15) Män-Ø [Murat-niŋ Güli-din bir muhim iš-ni sora-
1SG-NOM Murat-GEN Güli-ABL one important thing-ACC ask-
ğan-liq]-i-ni bil-i-män.
PERF.NOML-COMP-3SG.POSS-ACC know-NPST-1SG
'I know that Murat asked Güli one important thing.'

Non-finite complement clauses in Uyghur have five important characteristics. First, they are case-marked. The complement clause in (15), indicated with brackets, is accompanied by the accusative case marker *ni*, which is assigned to the complement clause by the matrix predicate *bil* 'know.' The complement clause serves as the object of the matrix verb and hence is marked accusative like an NP object, as illustrated in (16).

(16) Män-Ø u iš-ni bil-i-män.
1SG-NOM that thing-ACC know-NPST-1SG
'I know that thing.'

Second, the subject of the complement clause is marked genitive (Asarina and Hartman 2011).[2] Third, the non-finite complement clause is nominalized, as indicated by the presence of the nominalizer *-ğan*, which can be alternatively realized as *gän*, *qan*, or *kän*, depending on the processes of vowel harmony and consonant assimilation (Litip 2012).[3] Fourth, the nominalized predicate is followed by the complementizer, *liq/lik* (the alternation depends on vowel

[2] The consensus from the native speakers I consulted is that the genitive marking on the subject of the complement clause in (15) is obligatory.

[3] The suffix *ğan*/*gän*/*qan*/*kän* is multi-functional. For instance, it can function as a perfective aspect marker (Litip 2012).

harmony).[4] Fifth, the complementizer is followed by a possessive agreement marker, which agrees in person and number with the subject of the complement clause. For example, in (15), the third-person singular possessive marker *i*, which follows the COMP and precedes the accusative marker, agrees with the third-person singular subject of the complement clause.

Let us see the following two complement clauses with a first-person singular and a second-person singular subject, respectively.

(17) Sän-Ø [meniŋ Turdi-ğa azraq pul bär-gän-lik]-
2SG-NOM 1SG.GEN Turdi-DAT some money give-PERF.NOML-COMP-
im-ni bil-äm-sän?
1SG.POSS-ACC know-Q.PRT-2SG
'Do you know that I gave Turdi some money?'

(18) Män-Ø [seniŋ bultur Beyjiŋ-ğa bar-ğan-liq]-
1SG-NOM 2SG.GEN last.year Beijing-DAT go-PERF.NOML-COMP-
iŋ-ni bil-i-män.
2SG.POSS-ACC know-NPST-1SG
'I know that you went to Beijing last year.'

The complement clause in (17), whose subject is a first-person singular pronoun, is followed by the first-person singular possessive marker, *im*. Similarly, in (18), the complement clause is followed by the second-person singular possessive marker, *iŋ*, matching the person and number

[4] The status of *liq/lik* is under debate. While Litip (2012) discusses it as a nominalizer, Asarina and Hartman (2011) analyze it as a COMP. This dissertation follows the latter view (see Asarina and Hartman 2011 for detailed discussions).

features of the subject of the complement clause. The fact that a possessive marker following a complement clause indicates the subject of the clause is crucial to the discussion on reduced questions in Uyghur. Furthermore, it is worth noting that (17) is a yes-no question, marked by the question marker *mu/am/äm* (Litip 2012).

Next, let us consider finite complement clauses, which are introduced by the complementizer *däp*. See the examples in (19-21).

(19) Män-Ø [Güli-ni hazir tamaq yä-wat-idu-Ø däp] oyla-y-män.
1SG-NOM Güli-ACC now food eat-CONTI-NPST-3SG COMP think-NPST-1SG
'I think that Güli is eating food now.'

(20) Män-Ø [tapšuruq-ni tünügün tapšur-du-m däp] oyla-
1SG-NOM homework-ACC yesterday submit-PST-1SG COMP think-
p-ti-män.
ADVL-PST-1SG
'I thought that (I) submitted the homework yesterday.'

(21) Män-Ø [siz-ni bügün bäk čirayliq bol-up kät-ip-siz
1SG-NOM 2SG.HON-ACC today very pretty be-ADVL see-ADVL-2SG.HON
däp] oyla-y-män.
COMP think-NPST-1SG
'I think that you look very pretty today.'

In finite complement clauses, the embedded predicates are accompanied by tense and agreement markers, as demonstrated in (19-21). Moreover, the subjects of the finite complement clauses are assigned accusative case (Shklovsky and Sudo 2009).

4.2.1.2 Relative clauses

Let us move on to consider relative clauses in Uyghur (Csató and Uchturpani 2010; Öztürk2013; Major 2014). See the examples below.

(22) a. Tursun-niŋ [Murat-Ø bügün bir qiz-ğa sowğa
Tursun-GEN Murat-NOM today one girl-DAT present
qil-ğan heliqi närsä]-ni sat-iwal-ğu-si bar.
AUX-PERF.ADN that thing-ACC sell-SELF.AUX-DES.NOML-3SG.POSS have
'Tursun wants to buy that thing that Murat gave to a girl today.'

b. Tursun-niŋ [Murat-**niŋ** bügün bir qiz-ğa sowğa
Tursun-GEN Murat-GEN today one girl-DAT present
qil-ğan heliqi närsä-**si**]-ni sat-iwal-
AUX-PERF.ADN that thing-3SG.POSS-ACC sell-SELF.AUX-
ğu-si bar.
DES.NOML-3SG.POSS have
'Tursun wants to buy that thing that Murat gave to a girl today.'

In relative clauses in Uyghur, the subjects can be assigned nominative or genitive case, as shown in (22a) and (22b), respectively. Importantly, when the subject is marked genitive, the head noun, *heliqi närsä* 'that thing,' must be accompanied by a possessive marker that agrees with the subject in person and number, as in (22b).

Let us look at another set of data.

(23) a. Murat-Ø bügün [siz-Ø täwsiyä qil-ğan
Murat-NOM today 2SG.HON-NOM recommendation AUX-PERF.ADN
heliqi ašxana]-ğa bar-ip tamaq yä-di-Ø.
that restaurant-DAT go-ADVL meal eat-PST-3SG
'Today Murat went to eat at that restaurant that you recommended.'

b. Murat-Ø bügün [siz-**niŋ** täwsiyä qil-ğan
Murat-NOM today 2SG.HON-GEN recommendation AUX-PERF.ADN
heliqi ašxana-**ŋiz**]-ğa bar-ip tamaq yä-di-Ø.
that restaurant-2SG.HON.POSS-DAT go-ADVL meal eat-PST-3SG
'Today Murat went to eat at that restaurant that you recommended.'

The subject is marked nominative in the relative clause in (23a). In the relative clause in (23b), the subject is marked genitive, and the head noun of the relative clause is accompanied by the second-person honorific possessive marker, *ŋiz*, agreeing with the second-person honorific subject, *siz*. Moreover, there is no relative pronoun in relative clauses in Uyghur, unlike in English.

Next, let us see an example of relative clauses without subjects.

(24) Tursun-Ø [__ Güli-gä kitab sowğa qil-ğan kiši]-ni
Tursun-NOM Güli-DAT book present do-PERF.ADN person-ACC
kör-di-Ø.
see-PST-3SG

‘Tursun saw the person who gave Güli a book.’

In the relative clause in (24), the subject position is a gap. As a result, there is no possessive marker following the head noun of the relative clause.

As discussed in the previous literature (Öztürk 2013; Major 2014), relative clauses constitute islands for movement in Uyghur. See the example (25) below.

(25) a. Tursun-Ø [awu müšük-tin qorq-idiğan heliqi kiši]-ni
Tursun-NOM that cat-ABL fear-NPST.ADN that person-ACC
tänqidlä-di-Ø.
reprimand-PST-3SG
‘Tursun reprimanded that person who fears that cat.’

b.* Awu müšük-tin Tursun-Ø [*t* qorq-idiğan heliqi kiši]-ni
that cat-ABL Tursun-NOM fear-NPST.ADN that person-ACC
tänqidlä-di-Ø.
reprimand-PST-3SG
‘lit. That cat, Tursun reprimanded that person who fears.’

(25a) contains a relative clause, indicated with brackets. When an element, such as *awu müšük-tin* ‘that cat-ABL,’ is moved out of the relative clause to the initial position of the sentence, the sentence becomes unacceptable, as shown in (25b). Note that clause-internal scrambling and long-distance scrambling are both allowed in Uyghur (Öztürk 2013).[5] Accordingly, the

[5] Clause-internal scrambling is allowed in Uyghur (Öztürk 2013), as illustrated in (i).

unacceptability of moving an element out of relative clauses indicates that relative clauses constitute islands in Uyghur.

Let us consider another example.

(i) a. Zämirä-Ø kitab-ni oqu-di-Ø.
Zämirä-NOM book-ACC read-PST-3SG
'Zämirä read the book.'

b. Kitab-ni$_i$ Zämirä-Ø t_i oqu-di-Ø.
book-ACC Zämirä-NOM read-PST-3SG
'The book$_i$, Zämirä read t_i.'
(adapted from Öztürk 2013: 176)

As shown in (ib), the object undergoes scrambling. Moreover, long-distance scrambling is allowed in Uyghur (Öztürk 2013), as illustrated in (ii) and (iii).

(ii) a. Män-Ø [Zämirä-niŋ kitab-ni oqu-ğan-liq]-i-ni bil-i-män.
I-NOM Zämirä-GEN book-ACC read-PERF.NOML-COMP-3SG.POSS-ACC know-NPST-1SG
'I know that Zämirä read the book.'

b. Kitab-ni$_i$ män-Ø [Zämirä-niŋ t_i oqu-ğan-liq]-i-ni bil-i-män.
book-ACC I-NOM Zämirä-GEN read-PERF.NOML-COMP-3SG.POSS-ACC know-NPST-1SG
'The book$_i$, I know that Zämirä read t_i.'
(adapted from Öztürk 2013: 180)

(iii) a. Ayxan-Ø [Aygül-ni tünügün Ürümči-dä Inglizčä emtihan-ğa
Ayxan-NOM Aygül-ACC yesterday Urumqi-LOC.POSTP English exam-DAT
qatnaš-ti-Ø däp] oyla-ydu-Ø.
attend-PST-3SG COMP think-NPST-3SG
'Ayxan thinks that Aygül attended the English exam in Urumqi yesterday.'

b. Inglizčä emtihan-ğa$_i$ Ayxan-Ø [Aygül-ni tünügün Ürümči-dä t_i
English exam-DAT Ayxan-NOM Aygül-ACC yesterday Urumqi-LOC.POSTP
qatnaš-ti-Ø däp] oyla-ydu-Ø.
attend-PST-3SG COMP think-NPST-3SG
'The English exam$_i$, Ayxan thinks that Aygül attended t_i in Urumqi yesterday.'

In (iib), the object, *kitab-ni* 'book-ACC,' in the embedded clause is scrambled to the matrix clause. Likewise, the object, *Inglizčä emtihan-ğa* 'English exam-DAT' in (iii), is scrambled to the matrix clause. Both cases are acceptable in Uyghur.

(26) a. Ular-Ø [qaysi-xil Balqan til-i-da sözlä-ydiğan
3PL-NOM which-CL Balkan language-3SG.POSS-POSTP speak-NPST.ADN
bir kiši]-ni yalla-di-Ø?
one person-ACC hire-PST-3PL
'lit. Which Balkan language did they hire a person who speaks?'

b.* Qaysi-xil Balqan til-i-da ular-Ø [*t*
which-CL Balkan language-3SG.POSS-POSTP 3PL-NOM
sözlä-ydiğan bir kiši]-ni yalla-di-Ø?
speak-NPST.ADN one person-ACC hire-PST-3PL
'lit. Which Balkan language did they hire a person who speaks?'

The relative clause in (26a), which contains an in-situ *wh*-phrase, is acceptable. When the *wh*-phrase is moved out of the relative clause, as shown in (26b), the resulting sentence is not acceptable. The examples (25) and (26) illustrate the relative clause island effect in Uyghur.

4.2.1.3 Adverbial clauses

Let us now consider adverbial clauses in Uyghur (Öztürk 2013). See the examples in (27).

(27) a. [Tursun-Ø u kitab-ni oqu-p bol-up andin] u
Tursun-NOM that book-ACC read-ADVL AUX-ADVL after 3SG
tapšuruq-i-ni išlä-di-Ø.
homework-3SG.POSS-ACC do-PST-3SG
'Tursun did his homework after he read that book.'

b. Tursun-Ø [Aynur-Ø Mämät-kä amraq bol-ğačqa] intayin
Tursun-NOM Aynur-NOM Mämät-DAT fond AUX-reason.ADVL very
xapa bol-di-Ø.
angry be-PST-3SG
'Tursun was very angry because Aynur was fond of Mämät.'

As shown in (27), the subjects of adverbial clauses are marked nominative (Öztürk 2013).

According to the previous literature (Öztürk 2013), adverbial clauses constitute islands for movement in Uyghur. Consider the example below:

(28) * Mämät-kä Tursun-Ø [Aynur-Ø *t* amraq bol-ğačqa]
Mämät-DAT Tursun-NOM Aynur-NOM fond AUX-reason.ADVL
intayin xapa bol-di-Ø.
very angry be-PST-3SG
'lit. Of Mämät, Tursun was very angry because Aynur was fond.'

The object, *Mämät-kä* 'Mämät-DAT,' in the adverbial clause in (27b) is moved to the initial position of the sentence, as shown in (28). The resulting sentence is not acceptable. Since clause-internal scrambling and long-distance scrambling are both allowed in Uyghur (Öztürk

2013), the unacceptability of moving an element out of adverbial clauses indicates that adverbial clauses constitute islands.

Let us look at another set of data.

(29) Context: That Güli asked a person a question made Tursun happy. The speaker is aware of this context and says:

a. Tursun-Ø [Güli-Ø kim-din bir soal sora-ğačqa] xušal
Tursun-NOM Güli-NOM who-ABL one question ask-reason.ADVL pleased
bol-di-Ø?
be-PST-3SG
'lit. Who was Tursun pleased because Güli asked a question?'

b.* Kim-din Tursun-Ø [Güli-Ø *t* bir soal sora-ğačqa]
who-ABL Tursun-NOM Güli-NOM one question ask-reason.ADVL
xušal bol-di-Ø?
pleased be-PST-3SG
'lit. Who was Tursun pleased because Güli asked a question?'

The adverbial clause in (29a), which includes an in-situ *wh*-phrase, is acceptable. When the *wh*-phrase is moved out of the adverbial clause, as in (29b), the sentence becomes unacceptable. The examples (28) and (29) show the adjunct island effect in Uyghur.

4.2.2 Copular clauses

The discussion in this part covers four copulas in Uyghur (Litip 2012). Let us start with *tur/dur*,

which is used in non-past tense and often omitted in modern Uyghur. Consider (30):

(30) a. Män-Ø oquğuči-dur-män.
1SG-NOM student-COP-1SG
'I am a student.'

b. Män-Ø oquğuči-män.
1SG-NOM student-1SG
'I am a student.'

c. Män-Ø oquğuči.
1SG-NOM student
'I am a student.'
(cited from Litip 2013a: 66)

(30a) is a complete copular clause. The copula *dur* can be omitted, as shown in (30b). Additionally, the copula can be omitted together with the agreement marker, as in (30c) (Litip 2012; 2013a).

Next, let us consider *i*, which is used in past tense and can never be omitted. See the examples in (31).

(31) a. Män-Ø oquğuči i-di-m.
1SG-NOM student COP-PST-1SG
'I was a student.'
(cited from Litip 2013a: 64)

b. Sän-Ø oquğuči i-di-ŋ.

2SG-NOM student COP-PST-2SG

‘You were a student.’

(adapted from Litip 2012: 190)

c. U-Ø oquğuči i-di-Ø.

3SG-NOM student COP-PST-3SG

‘He was a student.’

(cited from Litip 2012: 311)

As can be seen from (31a-c), the copula *i* is followed by the past tense suffix and an agreement marker.

The third one is *bol*, which conveys either static or dynamic information and can be used in non-past or past tense sentences, as illustrated in (32) and (33), respectively (Litip 2012).

(32) Bu-Ø meniŋ uka-m bol-idu-Ø.

this-NOM 1SG.GEN younger.brother-1SG.POSS COP-NPST-3SG

‘This is my younger brother.’

(33) U-Ø bu yil äskär bol-di-Ø.

3SG-NOM this year soldier become-PST-3SG

‘He became a soldier this year.’

(cited from Litip 2012: 98).

Bol is followed by the non-past tense suffix in (32) and is followed by the past tense suffix in (33).

Lastly, let us consider *ikän*, which can be used in past or non-past tense sentences (Litip 2013a). This copula is formed by combining *i*, which is the copula used in past tense, and *kän*, which is one of the four forms of the perfective nominalizer (*ğan, kän, gän,* and *qan*). The copula *ikän* can be used in root or embedded clauses. When used in root clauses, it conveys an evidential and modal reading (Palmer 1986; Yakup and Zhang 2013), as shown in (34) and (35).

(34) Sän-Ø išči ikän-sän.
2SG-NOM worker COP-2SG
'It seems that you are a worker.'
(cited from Litip 2013a: 66)

(35) Män-Ø mäktäp-niŋ čoŋ išik-i-niŋ oŋ täräp-i-
1SG-NOM school-GEN big door-3SG.POSS-GEN right side-3SG.POSS-
dä ikän-män.
LOC.POSTP COP-1SG
'It seems that I am at the right side of the big gate of the school.'

On the other hand, when *ikän* appears in embedded clauses, no evidential reading seems to be triggered, as illustrated in (36) (see Gribanova 2013 for similar discussions on *e-kan* in Uzbek).

(36) Män-Ø [seniŋ bir išči ikän lik]-iŋ-ni
1SG-NOM 2SG.GEN one worker COP COMP-2SG.POSS-ACC
bil-i-män.
know-NPST-1SG
'I know that you are a worker.'

It is worth noting that the agreement-marking in copular clauses differs from that in clauses with lexical verbs. In the latter case, agreement markers agree with the subjects of the clauses, as discussed in section 4.1.3. In the former case, the agreement marker does not always agree with the subject of the clause. It agrees with the nominal predicate if the nominal predicate is a first- or second-person pronoun. Consider the examples below:

(37) Ašu muällim-Ø sän ikän-sän.
that teacher-NOM 2SG COP-2SG
'It turns out that teacher is you.'

(38) U muällim-Ø män ikän-män.
that teacher-NOM 1SG COP-1SG
'It turns out that teacher is me.'

The agreement marker in (37) agrees with the nominal predicate, *sän* 'you,' which is the complement to the copula. Likewise, the agreement marker in (38) agrees with the first-person nominal predicate. The agreement-marking in copular clauses illustrated in (37-38) is observed and discussed in some other languages, such as Turkish, Uzbek, Spanish, and Persian (e.g., Gribanova 2013; İnce, Aygen, and Aydın 2015; Bedir 2021). According to Gribanova (2013), "first and second person are more accessible than third person. If the two DPs are both bare, a first/second person DP will control agreement, regardless of structural position, if the other DP has third person features" (Gribanova 2013, p. 9). That is, the agreement marker agrees with the accessible DP in a copular clause.

Now let us embed the copular clauses in (37-38) to observe the agreement patterns.

(39) a. Män-Ø [ašu muällim-niŋ sän ikän lik]-**iŋ**-ni
1SG-NOM that teacher-GEN 2SG COP COMP-2SG.POSS-ACC
bil-i-män.
know-NPST-1SG
'I know that that teacher is you.'

b.* Män-Ø [ašu muällim-niŋ sän ikän lik]-**i**-ni
1SG-NOM that teacher-GEN 2SG COP COMP-3SG.POSS-ACC
bil-i-män.
know-NPST-1SG
'I know that that teacher is you.'

(40) a. Murat-Ø [u muällim-niŋ män ikän lik]-**im**-ni
Murat-NOM that teacher-GEN 1SG COP COMP-1SG.POSS-ACC
bil-di-Ø.
know-PST-3SG
'Murat knew that that teacher was me.'

b.* Murat-Ø [u muällim-niŋ män ikän lik]-**i**-ni
Murat-NOM that teacher-GEN 1SG COP COMP-3SG.POSS-ACC
bil-di-Ø.
know-PST-3SG
'Murat knew that that teacher was me.'

In (39) and (40), the subjects of the embedded copular clauses are *that teacher*, a third-person DP. If the possessive marker following the embedded clause agreed with the subject, then the

possessive marker should be the third-person one. This prediction is not borne out. In (39), the third-person possessive marker *i* is not allowed, as shown by the unacceptability of (39b). Only the second-person possessive marker *iŋ* is allowed, as in (39a). The comparison between (39a) and (39b) reveals that the possessive agreement marker agrees with *sän* 'you' but not the subject of the embedded clause, *ašu muällim* 'that teacher.' The same pattern is observed in (40). The agreement marker agrees with the first-person nominal predicate rather than the third-person subject. Based on (37-40), we can see that agreement markers agree with accessible DPs in sentences with a copula verb.

4.2.3 The cleft construction

This subsection details the cleft construction and its properties in Uyghur. Let us start our discussion with the example below.

(41) [Meniŋ bügün mäktäp-tä kör-gän-im] siz(-*ni).
1SG.GEN today school-LOC.POSTP see-PERF.ADN-1SG.POSS 2SG.HON-ACC
'It was you that I saw at school today.'

The cleft construction in Uyghur contains a presuppositional clause, indicated with brackets in (41), and a focused constituent. In the presuppositional clause, the subject is marked genitive, and the predicate is followed by the possessive marker that agrees with the subject in person and number. Moreover, the pivot can be followed by a copula, which is in turn followed by an agreement marker agreeing with the pivot in person and number, as shown in (42).

(42) [Meniŋ bügün mäktäp-tä kör-gän-im] siz(-*ni)

1SG.GEN today school-LOC.POSTP see-PERF.ADN-1SG.POSS 2SG.HON-ACC

ikän-siz.

COP-2SG.HON

'It turned out that it was you that I saw at school today.'

In (42), the pivot is followed by the copula *ikän* with an evidential reading, which is in turn followed by an agreement marker agreeing with the pivot *siz*.

Next, let us consider the properties of the cleft construction in Uyghur. First, the pivots cannot be accompanied by case markers. Consider (41) above and (43-44) below:

(43) [U-niŋ bu sowğat-ni bär-gän-i] sän(-*gä).

3SG-GEN this gift-ACC give-PERF.ADN-3SG.POSS 2SG-DAT

'It was to you that he gave this gift.'

(44) [Murat-niŋ bu iš-ni sora-ğan-i] Ayxan(-*din).

Murat-GEN this thing-ACC ask-PERF.ADN-3SG.POSS Ayxan-ABL

'It was Ayxan that Murat asked this thing.'

As can be seen from (41-44), the pivots in the cleft sentences cannot be accompanied by the accusative, dative, or ablative case marker. It may be assumed that the pivot in the cleft construction is in nominative case, which has a zero morpheme in Uyghur (see İnce 2006; 2009 for this assumption on the cleft construction in Turkish).

The pivots in the cleft sentences in (41-44) are all nominal phrases. According to my research, adverbial phrases cannot be pivots in the cleft construction in Uyghur (see İnce 2006; 2009 for

similar observations in Turkish). Consider the examples in (45) below:

(45) a.* [Murat-niŋ bu luğät-ni sat-iwal-ğan-i]
Murat-GEN this dictionary-ACC lend-SELF.AUX-PERF.ADN-3SG.POSS
kitabxana-din.
library-ABL
'It was from a library that Murat borrowed this dictionary.'

b.* [Murat-niŋ bu luğät-ni sat-iwal-ğan-i]
Murat-GEN this dictionary-ACC lend-SELF.AUX-PERF.ADN-3SG.POSS
kitabxana.
library
'It was from a library that Murat borrowed this dictionary.'

The pivots in the cleft sentences in (45) are adverbial phrases. The cleft sentences are not acceptable with or without the appearance of the ablative case marker on the pivot.[6]

[6] Let us note that the sentence in (45b) becomes acceptable when the presuppositional clause contains the NP *yär* 'place,' as shown in (ia).

(i) a. [Murat-niŋ bu luğät-ni sat-iwal-ğan yär-i] kitabxana.
Murat-GEN this dictionary-ACC lend-SELF.AUX-PERF.ADN place-3SG.POSS library
'The place from which Murat borrowed this dictionary was the library.'

b.* [Murat-niŋ bu luğät-ni sat-iwal-ğan yär-i]
Murat-GEN this dictionary-ACC lend-SELF.AUX-PERF.ADN place-3SG.POSS
kitabxana-din.
library-ABL
'The place from which Murat borrowed this dictionary was the library.'

Let us look at another set of data.

(46) a.* [Ayxan-niŋ kawap yä-gän-i] Beyjiŋ-da.
Ayxan-GEN roasted.meat eat-PERF.ADN-3SG.POSS Beijing-LOC.POSTP
'It was in Beijing that Ayxan ate roasted meat.'

b.* [Ayxan-niŋ kawap yä-gän-i] Beyjiŋ.
Ayxan-GEN roasted.meat eat-PERF.ADN-3SG.POSS Beijing
'It was in Beijing that Ayxan ate roasted meat.'

Similarly, the cleft sentences in (46) are not acceptable with adverbial pivots.[7]

The pivots in (41-46) are non-*wh*-phrases. Now, let us look at cases with *wh*-pivots.

Functionally speaking, the sentence in (ia) looks like a cleft sentence. However, it is essentially a copular sentence containing the subject NP modified by a relative clause and the nominal complement. Furthermore, the nominal complement cannot be accompanied by the ablative marker, as shown in (ib).

[7] Note that the sentence in (46b) becomes acceptable when the NP *yär* 'place' appears in the presuppositional clause, as illustrated in (ia).

(i) a. [Ayxan-niŋ kawap yä-gän yär-i] Beyjiŋ.
Ayxan-GEN roasted.meat eat-PERF.ADN place-3SG.POSS Beijing
'The place in which Ayxan ate roasted meat was Beijing.'

b.? [Ayxan-niŋ kawap yä-gän yär-i] Beyjiŋ-da.
Ayxan-GEN roasted.meat eat-PERF.ADN place-3SG.POSS Beijing-LOC.POSTP
'The place in which Ayxan ate roasted meat was Beijing.'

The sentence in (ia) is a copular sentence containing a subject NP modified by a relative clause and a nominal predicate. Interestingly, the nominal predicate *Beijing* may be accompanied by the locative-temporal postposition *da/dä/ta/tä* in Uyghur (Litip 2012; 2013b).

(47) [Seniŋ tünügün kör-gän-iŋ] kim(-*ni)?

2SG.GEN yesterday see-PERF.ADN-2SG.POSS who-ACC

'Who was it that you saw yesterday?'

(48) [U-niŋ bu sowğat-ni bär-gän-i] kim(-*gä)?

3SG-GEN this gift-ACC give-PERF.ADN-3SG.POSS who-DAT

'To whom was it that he gave this gift?'

(49) [Murat-niŋ bu iš-ni sora-ğan-i] kim(-*din)?

Murat-GEN this thing-ACC ask-PERF.ADN-3SG.POSS who-ABL

'Who was it that Murat asked this thing?'

(50) a.* [Murat-niŋ bu luğät-ni sat-iwal-ğan-i]

Murat-GEN this dictionary-ACC lend-SELF.AUX-PERF.ADN-3SG.POSS

qäyär-din?

where-ABL

'From where was it that Murat borrowed this dictionary?'

b.* [Murat-niŋ bu luğät-ni sat-iwal-ğan-i] qäyär?

Murat-GEN this dictionary-ACC lend-SELF.AUX-PERF.ADN-3SG.POSS where

'From where was it that Murat borrowed this dictionary?'

The cleft sentences with nominal *wh*-pivots are all acceptable, as in (47-49). And the pivots cannot be accompanied by case markers. The cleft sentence with the adverbial *wh*-pivot is not acceptable with or without the pivot being accompanied by a case marker, as shown in (50a-b).

Interestingly, the cleft construction in Uyghur allows the presence of some postpositional phrases, as exemplified in (51).

(51) [Aminä-niŋ u kona mašina-ni remont qil-dur-ğan-i] nemä
Aminä-GEN that old car-ACC repair do-CAUS-PERF.ADN-3SG.POSS what
üčün?
POSTP
'For what was it that Amina had that old car repaired?'

The cleft sentence in (51) is acceptable with the pivot followed by the postposition *üčün* 'for the sake of,' which is denominal (e.g., Cao 2007; Li 2011). According to the previous literature (e.g., Pinkham and Hankamer 1975), "there appears to be a hierarchy of cleftability for constituent types. NP is most easily clefted, PP is next (with locative PP, whether temporal or spatial, more easily clefted than others), adjective and adverb phrases considerably more difficult. This looks roughly like a kind of nouniness scale—the more NP-like a constituent is, the more easily clefted" (Pinkham and Hankamer 1975, p.433). Accordingly, it is understandable that PPs that are denominal like (51) can be pivots in the cleft construction in Uyghur.[8]

Another property of the cleft construction in Uyghur is that it can appear in embedded clauses, as shown in (52).

(52) a. [[Meniŋ bügün mäktap-tä kör-gän-im]-niŋ
1SG.GEN today school-LOC.POSTP see-PERF.ADN-1SG.POSS-GEN
siz(-*ni) ikän lik]-**iŋiz**-ni bil-i-män.
2SG.HON-ACC COP COMP-2SG.HON.POSS-ACC know-NPST-1SG

[8] Since Uyghur has more than 20 postpositions (Litip 2012), a detailed study on postpositional phrases as pivots in the cleft construction is left for future studies.

‘(I) know that it was you that I saw at school today.’

b.* [[Meniŋ bügün mäktap-tä kör-gän-im]-niŋ siz
1SG.GEN today school-LOC.POSTP see-PERF.ADN-1SG.POSS-GEN 2SG.HON
ikän lik]-**i**-ni bil-i-män.
COP COMP-3SG.POSS-ACC know-NPST-1SG
‘(I) know that it was you that I saw at school today.’

The embedded cleft sentence in (52a) with a non-*wh*-pivot is acceptable. In the embedded cleft sentence, its presuppositional clause is assigned genitive case, serving as the subject of the embedded clause. The pivot is followed by the copula *ikän*, which is in turn followed by the complementizer *lik*. Importantly, the complementizer is followed by a possessive agreement marker which agrees with the pivot in person and number. For instance, in (52a), the possessive marker must be the second-person singular honorific *iŋiz*, agreeing with the second-person singular honorific pivot *siz*. If the possessive marker is the third-person *i*, agreeing with the clausal subject, which is in the third person by default, the sentence is not acceptable, as shown in (52b). The observation that the possessive agreement marker agrees with the pivot is reminiscent of the observation that the agreement marker agrees with an accessible DP in copular clauses in Uyghur, as discussed in section 4.2.2.

Let us add two more examples.

(53) Meniŋ [[Murat-niŋ bu iš-ni sora-ğan-i]-niŋ
1SG.GEN Murat-GEN this thing-ACC ask-PERF.ADN-3SG.POSS-GEN
kim(-*din) ikän lik]-**i**-ni bil-gü-m bar.
who-ABL COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have

‘I want to know who it was that Murat asked this thing.’

(54) Meniŋ [[počtaliyon-niŋ mälum närsä-ni tapšur-up bär-
1SG.GEN mailman-GEN some thing-ACC deliver-ADVL AUX-
gän-i]-niŋ kim(-*gä) ikän lik]-**i**-ni
PERF.ADN-3SG.POSS-GEN who-DAT COP COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have
‘I want to know to whom it was that the mailman delivered something.’

The sentences in (53-54) containing embedded cleft sentences with *wh*-pivots are acceptable. The embedded cleft sentences consist of the genitive-marked presuppositional clauses, the *wh*-pivots, and the copula *ikän*, which is followed by the complementizer and the third-person singular possessive agreement marker agreeing with the third-person *wh*-pivots.

Lastly, the cleft construction in Uyghur does not allow multiple pivots. See the example below.

(55) a. U-Ø saŋa bu sowğat-ni bär-di-Ø.
3SG-NOM 2SG.DAT this gift-ACC give-PST-3SG
‘He gave this gift to you.’

b.* [U-niŋ bär-gän-i] saŋa bu sowğat-ni.
3SG-GEN give-PERF.ADN-3SG.POSS 2SG.DAT this gift-ACC
‘lit. It was this gift to you that he gave.’

Based on the ditransitive sentence in (55a), the multiple cleft sentence in (55b) is constructed.

(55b), which contains two case-marked pivots, is not acceptable. Additionally, the multiple cleft sentence is unacceptable when one of the pivots is not marked for case or when neither pivot is marked for case, as illustrated in (56).

(56) a.* [U-niŋ bär-gän-i] saŋa bu sowğat.
3SG-GEN give-PERF.ADN-3SG.POSS 2SG.DAT this gift
'lit. It was this gift to you that he gave.'

b.* [U-niŋ bär-gän-i] sän bu sowğat-ni.
3SG-GEN give-PERF.ADN-3SG.POSS 2SG this gift-ACC

c.* [U-niŋ bär-gän-i] sän bu sowğat.
3SG-GEN give-PERF.ADN-3SG.POSS 2SG this gift

The multiple cleft sentences with non-*wh*-pivots in (55-56) are not acceptable.

In addition, multiple cleft sentences with *wh*-pivots are not acceptable in Uyghur. See the examples below.

(57) a.* [U-niŋ bär-gän-i] kim-gä nemä-ni?
3SG-GEN give-PERF.ADN-3SG.POSS who-DAT what-ACC
'lit. What to whom was it that he gave?'

b.?* [U-niŋ bär-gän-i] kim-gä nemä?
3SG-GEN give-PERF.ADN-3SG.POSS who-DAT what

c.* [U-niŋ bär-gän-i] kim nemä-ni?
3SG-GEN give-PERF.ADN-3SG.POSS who what-ACC

d.* [U-niŋ bär-gän-i] kim nemä?

3SG-GEN give-PERF.ADN-3SG.POSS who what

(58) a.?* [Aygül-niŋ ayril-ğan-i] qaysi waqit-da qaysi

Aygül-GEN leave-PERF.ADN-3SG.POSS which time-TEM.POSTP which

šähär-din?

city-ABL

'lit. From which city at which time was it that Aygül left?'

b.?? [Aygül-niŋ ayril-ğan-i] qaysi waqit-da qaysi šähär?

Aygül-GEN leave-PERF.ADN-3SG.POSS which time-TEM.POSTP which city

c.* [Aygül-niŋ ayril-ğan-i] qaysi waqit qaysi šähär-din?

Aygül-GEN leave-PERF.ADN-3SG.POSS which time which city-ABL

d.* [Aygül-niŋ ayril-ğan-i] qaysi waqit qaysi šähär?

Aygül-GEN leave-PERF.ADN-3SG.POSS which time which city

The multiple cleft sentences in (57) with two NP *wh*-pivots are not acceptable. Likewise, those in (58) with two adjunct *wh*-pivots are unacceptable. Though the cleft sentence in (58b) is slightly more acceptable than the other cases, it is not accepted by half of the native speakers I consulted.

This subsection has detailed the cleft construction in Uyghur. The pivots in the cleft sentences must be nominal-like phrases. The pivots cannot be accompanied by case markers but can be accompanied by some postpositions that are denominal. Moreover, the multiple cleft construction is not allowed. The cleft construction in Uyghur is very similar to that in Turkish (İnce 2006; 2009), which is understandable since Uyghur is a Turkic language. Notably, a possessive agreement marker following an embedded cleft sentence agrees with the pivot in

person and number, just as the agreement marker agrees with the pivot in person and number in a root cleft sentence.

4.2.4 *Wh*-questions

As discussed in section 4.1, Uyghur is a *wh*-in-situ language (Litip 2012; 2017), as exemplified in (59).

(59) Sän-Ø kim-gä nurğun pul bär-di-ŋ?
2SG-NOM who-DAT a.lot money give-PST-2SG
'To whom did you give a lot of money?'

As can be seen from (59), *wh*-questions in Uyghur do not contain a question particle (Litip 2012). Moreover, *wh*-questions can appear in embedded clauses, as illustrated in (60-61).

(60) Meniŋ [seniŋ kim-gä nurğun pul
1SG.GEN 2SG.GEN who-DAT a.lot money
bär-gän-lik]-**iŋ**-ni bil-gü-m bar.
give-PERF.NOML-COMP-2SG.POSS-ACC know-DES.NOML-1SG have
'I want to know to whom you gave a lot of money.'

(61) Meniŋ aka-lar-im-niŋ [meniŋ tünügün
1SG.GEN elder.brother-PL-1SG.POSS-GEN 1SG.GEN yesterday
kim-din nurğun pul qärz al-ğan-liq]-**im**-ni
who-ABL a.lot money loan SELF.AUX-PERF.NOML-COMP-1SG.POSS-ACC
bil-gü-si bar.
know-DES.NOML-3PL have
'My elder brothers want to know from whom I borrowed a lot of money.'

As shown in the embedded question in (60), the predicate *bar* 'give' is nominalized and followed by the complementizer, which is in turn followed by the possessive agreement marker *iŋ* agreeing with the subject of the embedded question in person and number. Similarly, in the embedded question in (61), its subject is a first-person singular pronoun, and the possessive marker following the embedded question must be the first-person singular *im*.

In addition to single *wh*-questions, Uyghur allows multiple *wh*-questions. Consider the data below:[9]

(62) Kim-Ø nemä mewä sat-iwal-di-Ø?
who-NOM what fruit sell-SELF.AUX-PST-3SG
'Who bought what fruit?'

[9] Let us note the complex predicate *sat-iwal* 'buy' in (62). It is formed by combining the verb *sat* 'sell' with the adverbializer *ip* and the self-benefiting aspectual auxiliary verb *al*. Uyghur has seven adverbializers, which are attached to verbs, function to transform verbs into verbal adverbs. Then, the verbal adverbs are followed by auxiliaries to form complex predicates (Anderson 2006; Litip 2012; 2017). Uyghur has more than 20 aspectual auxiliaries with different meanings. Among them, *al* is used to express the agent performing an action for his/her own benefit. In modern Uyghur, *iwal*, as a self-benefiting auxiliary, is a fixed usage.

The multiple *wh*-question in (62) containing two *wh*-phrases is perfectly acceptable.

Importantly, multiple *wh*-questions in Uygur allow single-pair and pair-list interpretation. For instance, (62) can be answered as follows:

(63) a. Single-pair answer

Ayxan-Ø alma sat-iwal-di-Ø.

Ayxan-NOM apple sell-SELF.AUX-PST-3SG

'Ayxan bought apples.'

b. Pair-list answer

Ayxan-Ø alma, Murat-Ø banan, Turdi-Ø aplisin

Ayxan-NOM apple Murat-NOM banana Turdi-NOM orange

sat-iwal-di-Ø.

sell-SELF.AUX-PST-3SG

'Ayxan bought apples, Murat bananas, and Turdi oranges.'

Multiple *wh*-questions can appear in embedded clauses, as illustrated in (64-65).

(64) Män-Ø [kim-niŋ nemä mewä sat-iwal-ğan-liq]-

1SG-NOM who-GEN what fruit sell-SELF.AUX-PERF.NOML-COMP-

i-ğa qiziq-ip qal-di-m.

3SG.POSS-DAT excite-ADVL AUX-PST-1SG

'I wonder who bought what fruit.'

(65) Män-Ø [u-niŋ qaysi sinip-ta kim bilän paraŋlaš-
1SG-NOM 3SG-GEN which classroom-LOC.POSTP who POSTP chat-
qan-liq]-i-ğa qiziq-ip qal-di-m.
PERF.NOML-COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'I wonder with whom he chatted in which classroom.'

The sentences in (64) and (65) each contain an embedded multiple *wh*-question, indicated with brackets. In the embedded questions, the subjects are marked genitive, and the predicates are nominalized, followed by the complementizer and the possessive agreement marker. Moreover, the embedded clauses are assigned dative case by the matrix predicate *wonder*.

4.3 Reduced embedded single *wh*-questions

This section discusses reduced embedded single *wh*-questions in Uyghur and proposes to analyze them in terms of the pseudo-sluicing analysis or the reduced cleft analysis (Bai 2023a).

4.3.1 Basic phenomena

This subsection presents reduced embedded questions in Uyghur. Consider the following data:

(66) a. Biraw-Ø Murat-qa bir närsä sowğa qil-ip-tu-Ø,
someone-NOM Murat-DAT one thing present AUX-ADVL-PST-3SG
'Someone gave Murat a thing,'

b. meniŋ [kim-niŋ u-niŋ-ğa bir närsä sowğa qil-ğan-
1SG.GEN who-GEN 3SG-GEN-DAT one thing present AUX-PERF.NOML-
liq]-i-ni bil-gü-m bar.
COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who gave him a thing.'

c. meniŋ [kim lik]-i-ni bil-gü-m bar.
1SG.GEN who COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who.'

The sentence in (66a) is intended to antecede the full-fledged *wh*-question in (66b) and the reduced question in (66c). Reduction of the embedded question in (66b) yields (66c), containing the remnant *wh*-phrase, accompanied by the complementizer *lik/liq*. Notably, the reduced question is followed by the personal possessive agreement marker and the accusative case marker, which is assigned to the embedded clause by the matrix predicate *bil* 'know.'

Let us look at another example.

(67) a. Ayxan-Ø bir kino kör-di-Ø,
Ayxan-NOM one movie watch-PST-3SG
'Ayxan watched a movie,'

b. lekin män-Ø [u-niŋ nemä kino kör-gän-lik]-
but 1SG-NOM 3SG-GEN what movie watch-PERF.NOML-COMP-
i-ni bil-mä-y-män.
3SG.POSS-ACC know-NEG-NPST-1SG
'but I don't know what movie she watched.'

c. lekin män-Ø [nemä kino liq]-i-ni bil-mä-y-män.
but 1SG-NOM what movie COMP-3SG.POSS-ACC know-NEG-NPST-1SG
'but I don't know what movie.'

The sentence in (67a) is the antecedent of the full-fledged indirect question in (67b) and its reduced counterpart in (67c). The full-fledged question is reduced to consist of the remnant *wh*-phrase, *nemä kino* 'what movie,' accompanied by the COMP *liq*.

The remnants in (66-67) are nominal *wh*-phrases. Reduced embedded questions in Uyghur also allow adjunct *wh*-phrases, as shown in (68).

(68) a. Murat-Ø bir sinip-ta öginiš qil-iwat-idu-Ø,
Murat-NOM one classroom-LOC.POSTP study AUX-PROG-NPST-3SG
'Murat is studying in a classroom,'

b. män-Ø [Murat-niŋ qaysi sinip-ta öginiš qil-iwat-qan-
1SG-NOM Murat-GEN which classroom-LOC.POSTP study AUX-PROG-NOML
liq]-i-ğa qiziq-ip qal-di-m.
COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'I wonder in which classroom Murat is studying.'

c. män-Ø [qaysi sinip liq]-i-ğa qiziq-ip
1SG-NOM which classroom COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'I wonder which classroom.'

The full-fledged embedded question in (68b) and the reduced question in (68c) are anteceded by (68a). The reduced question is acceptable with the adjunct *wh*-remnant.

In addition to *wh*-remnants, non-*wh*-remnants are allowed to appear in reduced embedded clauses in Uyghur. See the example (69).

(69) a. Ayxan-Ø [Aygül-ni tünügün Ürümči-dä Inglizčä emtihan-ğa
Ayxan-NOM Aygül-ACC yesterday Urumqi-LOC.POSTP English exam-DAT
qatnaš-ti-Ø däp] oyla-ydu-Ø,
attend-PST-3SG COMP think-NPST-3SG
'Ayxan thinks that Aygül attended an English exam in Urumqi yesterday,'

b. lekin män-Ø [u-ni ülüškün Ürümči-dä
but 1SG-NOM 3SG-ACC the.day.before.yesterday Urumqi-LOC.POSTP
Inglizčä emtihan-ğa qatnaš-ti-Ø däp] oyla-y-män.
English exam-DAT attend-PST-3SG COMP think-NPST-1SG
'but I think that she attended the English exam in Urumqi the day before yesterday.'

c. lekin män-Ø [ülüškün däp] oyla-y-män.
but 1SG-NOM the.day.before.yesterday COMP think-NPST-1SG
'lit. but I think that the day before yesterday.'

The sentence in (69a) is intended to antecede the full-fledged embedded clause in (69b) and the truncated embedded clause in (69c). (69c), which contains a non-*wh*-remnant, followed by the

complementizer *däp*, is acceptable.[10]

4.3.2 Properties

This subsection details the properties of reduced embedded single questions in Uyghur.

4.3.2.1 Case-marking on remnant phrases

The discussion in this part focuses on case-marking on remnant *wh*-phrases in reduced questions in Uyghur. Let us start our discussion with the following example.

(70) a. Matematika oqutquči-si-Ø bir adäm-ni tänqid
math teacher-3SG.POSS-NOM one person-ACC reprimand
qil-di-Ø,
AUX-PST-3SG
'The math teacher reprimanded a person,'

b. meniŋ [u-niŋ kim-ni tänqid qil-ğan-liq]-i-ni
1SG.GEN 3SG-GEN who-ACC reprimand AUX-PERF.NOML-COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have

[10] Note that the matrix predicate *oyla* 'think' in (69) takes a finite complement clause, which is not case-marked. The matrix predicates in examples such as (67) and (68) take non-finite complement clauses, which are case-marked. Please refer to section 4.2.1 for detailed discussions.

‘I want to know who he reprimanded.’

c. meniŋ [kim(-*ni) lik]-i-ni bil-gü-m bar.
1SG.GEN who-ACC COMP-3SG.POSS-ACC know-DES.NOML-1SG have
‘I want to know who.’

The sentence in (70a) serves as the antecedent of the full-fledged indirect question in (70b) and its reduced counterpart in (70c). The correlate *bir adäm* ‘one person’ in (70a) is accompanied by the accusative marker. The *wh*-phrase *kim* ‘who’ in (70b) is marked accusative similarly. In (70c), the *wh*-phrase cannot be marked accusative, unlike its correlate in (70a) and the *wh*-phrase in (70b).

Now let us consider an example where the correlate of the remnant is marked dative.

(71) 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-niŋ qaysi-xil mewä-gä amraq-liq]-i-
but 1SG-NOM Ayxan-GEN which-CL fruit-DAT fond-COMP-3SG.POSS-
ni bil-mä-y-män.
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) lik]-i-ni
but 1SG-NOM which-CL fruit-DAT COMP-3SG.POSS-ACC
bil-mä-y-män.
know-NEG-NPST-1SG

‘but I don’t know which kind of fruit.’

In (71a), which is intended to antecede (71b-c), the object *bir-xil mewä* ‘one-CL fruit’ is marked dative. (71b) contains a full-fledged embedded question, where the *wh*-phrase, *qaysi-xil mewä* ‘which-CL fruit,’ which corresponds to the object in (71a), is marked dative as well. In the reduced question in (71c), the *wh*-phrase cannot be marked dative.

Next, let us look at an example with an ablative-marked correlate.

(72) 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) liq]-i-ni
but 1SG-NOM which-CL animal-ABL COMP-3SG.POSS-ACC
bil-mä-y-män.
know-NEG-NPST-1SG
‘but I don’t know which kind of animal.’

The correlate in the antecedent sentence in (72a) is marked ablative. However, the *wh*-remnant in (72b) cannot be marked ablative.

Thus far, we can see that remnants in reduced embedded questions in Uyghur cannot be case-marked. According to my study, remnant phrases can be followed by some postpositions, as exemplified in (73).

(73) a. Aminä-Ø bir iš üčün u mašina-ni remont qil-dur-di-Ø,
Aminä-NOM one thing POSTP that car-ACC repair AUX-CAUS-PST-3SG
'Aminä had that car repaired for something,'

b. meniŋ [u-niŋ nemä iš üčün u mašina-ni remont
1SG.GEN 3SG-GEN what thing POSTP that car-ACC repair
qil-dur-ğan-liq]-i-ni bil-gü-m bar.
AUX-CAUS-PERF.NOML-COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know for what Aminä had that car repaired.'

c. meniŋ [nemä iš üčün lik]-i-ni bil-gü-m
1SG.GEN what thing POSTP COMP-3SG.POSS-ACC know-DES.NOML-1SG
bar.
have
'I want to know for what.'

The sentence in (73a) is the antecedent of the full-fledged indirect question in (73b) and the reduced question in (73c). The reduced question, in which the *wh*-remnant is accompanied by the postposition *üčün* 'for the sake of,' is acceptable.

4.3.2.2 The appearance of the copula

In reduced embedded single questions in Uyghur, the copula *ikän* can optionally appear, as illustrated in the examples (74-77).

(74) a. Matematika oqutquči-si-Ø bir adäm-ni tänqid
math teacher-3SG.POSS-NOM one person-ACC reprimand
qil-di-Ø,
AUX-PST-3SG
'The math teacher reprimanded a certain person,'

b. meniŋ [kim(-*ni) **ikän** lik]-i-ni bil-gü-m bar.
1SG.GEN who-ACC COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who.'

(75) 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 [qaysi-xil mewä(-*gä) **ikän** lik]-i-ni
but 1SG-NOM which-CL fruit-DAT COP COMP-3SG.POSS-ACC
bil-mä-y-män.
know-NEG-NPST-1SG
'but I don't know which kind of fruit.'

(76) 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]-i-ni
but 1SG-NOM which-CL animal-ABL COP COMP-3SG.POSS-ACC
bil-mä-y-män.
know-NEG-NPST-1SG
'but I don't know which kind of animal.'

(77) a. Aminä-Ø bir iš üčün u mašina-ni remont qil-dur-di-Ø,
Aminä-NOM one thing POSTP that car-ACC repair AUX-CAUS-PST-3SG
'Aminä had that car repaired for something,'

b. meniŋ [nemä iš üčün **ikän** lik]-i-ni
1SG.GEN what thing POSTP COP COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have
'I want to know for what.'

As can be seen from (74-77), the reduced questions allow the presence of the copula *ikän*.

4.3.2.3 Non-linguistic antecedents

Reduced questions in Uyghur can be used felicitously without linguistic antecedents. Consider the data below (the context for (78) is modeled after Gribanova and Manetta 2016):

(78) Context: Ayxan and the speaker are shopping in a boutique. The speaker picks up a mysterious product and says:
Män-Ø [nemä (ikän) lik]-i-ni bil-mä-y-män.
1SG-NOM what COP COMP-3SG.POSS-ACC know-NEG-NPST-1SG
'I don't know what.'

(79) Context: The speaker hears someone screaming and says:

Täŋri-m,	meniŋ	[kim	(ikän)	lik]-i-ni		bil-gü-
god-1SG.POSS	1SG.GEN	who	COP	COMP-3SG.POSS-ACC		know-DES.NOML-
m	bar.					
1SG	have					

'Oh my god, I want to know who.'

Both (78) and (79) contain utterances with reduced indirect questions. Note that they are perfectly felicitous with the contexts given, which are not expressed linguistically. As observed by Hankamer and Sag (1976), while ellipsis requires verbally expressed antecedents, pronominal expressions can be used felicitously without such antecedents. Cases like (78-79) can be explained if reduced questions in Uyghur involve pronominal subjects rather than sluicing.

4.3.2.4 Island insensitivity

As discussed in section 4.2, relative clauses and adjunct clauses constitute islands for movement in Uyghur (Öztürk 2013; Major 2014). Now let us examine whether reduced embedded questions in Uyghur exhibit island effects. First, consider cases involving the relative clause island:

(80) a. Tursun-Ø [bir müšük-tin qorq-idiğan heliqi kiši]-ni
Tursun-NOM one cat-ABL fear-NPST.ADN that person-ACC
tänqidlä-di-Ø,
reprimand-PST-3SG
'Tursun reprimanded that person who fears a cat,'

b. män-Ø [qaysi müšük (ikän) lik]-i-gä qiziq-ip
1SG-NOM which cat COP COMP-3SG.POSS-DAT wonder-ADVL
qal-di-m.
AUX-PST-1SG
'I wonder which cat.'

The sentence in (80a), which contains a relative clause, antecedes the reduced question in (80b). The correlate of the *wh*-remnant is *bir müšük* 'one cat,' which is inside the relative clause. Nevertheless, the reduced question is acceptable.

Let us consider another example.

(81) a. Ular-Ø [bir-xil Balqan til-i-da sözlä-ydiğan
3PL-NOM one-CL Balkan language-3SG.POSS-POSTP speak-NPST.ADN
bir kiši]-ni yalla-di-Ø,
one person-ACC hire-PST-3PL
'They hired a person who speaks a Balkan language,'

b. män-Ø [qaysi-xil Balqan til-i (ikän) lik]-i-gä
1SG-NOM which-CL Balkan language-3SG.POSS COP COMP-3SG.POSS-DAT
qiziq-ip qal-di-m.
wonder-ADVL AUX-PST-1SG
'I wonder which Balkan language.'

The reduced question in (81b) is anteceded by the sentence in (81a) containing a relative clause. The correlate of the remnant *wh*-phrase is inside the relative clause. The reduced question is acceptable. The observation that (80-81) are acceptable indicates that reduced questions in Uyghur are insensitive to the relative clause island effect.

Next, let us examine cases involving the adjunct island.

(82) a. Tursun-Ø [Güli-Ø bir oğul bala-ğa amraq bol-ğačqa]
Tursun-NOM Güli-NOM one male child-DAT fond AUX-reason.ADVL
intayin xapa bol-di-Ø,
very angry be-PST-3SG
'Tursun was very angry because Güli was fond of a boy,'

b. män-Ø [kim (ikän) lik]-i-gä qiziq-ip qal-di-m.
1SG-NOM who COP COMP-3SG.POSS-DAT wonder-ADVL AUX-PST-1SG
'I wonder who.'

(83) a. Tursun-Ø [Güli-Ø birsi-din bir soal sora-ğačqa]
Tursun-NOM Güli-NOM someone-ABL one question ask-reason.ADVL
xušal bol-di-Ø,
pleased be-PST-3SG

‘Tursun was pleased because Güli asked someone a question,’

b. män-Ø [kim (ikän) lik]-i-gä qiziq-ip qal-di-m.
1SG-NOM who COP COMP-3SG.POSS-DAT wonder-ADVL AUX-PST-1SG
‘I wonder who.’

The sentences in (82a) and (83a), each of which contains an adverbial clause, are intended to antecede the reduced questions in (82b) and (83b), respectively. The correlates of the *wh*-remnants in the reduced questions are inside the adverbial clauses. The reduced questions are acceptable, which shows that reduced questions in Uyghur are not sensitive to the adjunct island effect.

4.3.2.5 Sloppy identity

The previous literature (e.g., Ross 1969; Takahashi 1994; Merchant 2001; Liu, Hyams, and Mateu 2022) considers whether cases of what seems to involve sluicing permit sloppy interpretation. According to my study, sloppy interpretation is allowed in reduced embedded questions in Uyghur. Let us start our discussion with the English example below.

(84) I know how to say I’m sorry, and Bill knows how, too.
(cited from Ross 1969: 274)

The second clause in (84) contains a sluiced clause, which is anteceded by the first clause in (84). The sluiced clause has two interpretations. One is the strict interpretation: *Bill knows how*

to say I'm sorry. The other is the sloppy interpretation: *Bill knows how to say he's sorry*.

Now let us look at an example from Uyghur.

(85) a. Tursun-Ø [öz-i-niŋ nemä üčün iš-tin bošat-il-
Tursun-NOM self-3SG.POSS-GEN what POSTP thing-ABL fire-PASS-
ğan-liq]-i-ni bil-mä-ydu-Ø,
PERF.NOML-COMP-3SG.POSS-ACC know-NEG-NPST-3SG
'lit. Tursun doesn't know for what self was fired,'

b. lekin Aygül-Ø [nemä üčün (ikän) lik]-i-ni
but Aygül-NOM what POSTP COP COMP-3SG.POSS-ACC
bil-idu-Ø.
know-NPST-3SG
'but Aygül knows for what.'

The sentence in (85a) antecedes the reduced question in (85b), which contains the *wh*-remnant, the postposition, the copula, and the COMP. The reduced question permits not only the strict reading that *Aygül knows for what Tursun was fired* but also the sloppy reading that *Aygül knows for what Aygül herself was fired*.

Let us add another set of data.

(86) a. Tursun-Ø [öz-i-niŋ dada-si-niŋ nemä iš üčün
Tursun-NOM self-3SG.POSS-GEN father-3SG.POSS-GEN what thing POSTP
Beyjiŋ-ğa kamandiropka-ğa äwät-il-idiğan-liq]-i-ni
Beijing-DAT official.trip-DAT dispatch-PASS-NPST.NOML-COMP-3SG.POSS-ACC
bil-mä-ydu-Ø,
know-NEG-NPST-3SG
'lit. Tursun doesn't know for what self's father will be dispatched to Beijing,'

b. lekin Aygül-Ø [nemä iš üčün (ikän) lik]-i-ni
but Aygül-NOM what thing POSTP COP COMP-3SG.POSS-ACC
bil-idu-Ø.
know-NPST-3SG
'but Aygül knows for what.'

The reduced question in (86b), which is anteceded by (86a), has not only the strict reading that *Aygül knows for what Tursun's father will be dispatched to Beijing* but also the sloppy reading that *Aygül knows for what Aygül's father will be dispatched to Beijing*.

4.3.3 Theoretical analyses

This subsection details the theoretical analyses of reduced embedded single *wh*-questions in Uyghur. First, reduced questions in Uyghur cannot be analyzed in terms of a sluicing analysis. Rather, they should be analyzed in terms of the pseudo-sluicing analysis or the reduced cleft analysis.

4.3.3.1 Arguments against a sluicing analysis

As discussed in Bai (2023a), sluicing is not involved in reduced embedded single questions in Uyghur. Consider the following data:

(87) a. Sän-Ø biraw-ğa nurğun pul bär-di-ŋ,
2SG-NOM someone-DAT a.lot money give-PST-2SG
'You gave someone a lot of money,'

b. meniŋ [seniŋ kim-gä nurğun pul bar-gän-lik]-
1SG.GEN 2SG.GEN who-DAT a.lot money give-PERF.NOML-COMP-
iŋ-ni bil-gü-m bar.
2SG.POSS-ACC know-DES.NOML-1SG have
'I want to know to whom you gave a lot of money.'

c.* meniŋ [seniŋ kim-gä nurğun pul bar-gän-lik]-
1SG.GEN 2SG.GEN who-DAT a.lot money give-PERF.NOML-COMP-
i-ni bil-gü-m bar.
3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know to whom you gave a lot of money.'

d. meniŋ [kim(-*gä) (ikän) lik]-**i**-ni bil-gü-m bar.
1SG.GEN who-DAT COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who.'

e.* meniŋ [kim (ikän) lik]-**iŋ**-ni bil-gü-m bar.
1SG.GEN who COP COMP-2SG.POSS-ACC know-DES.NOML-1SG have

‘I want to know who.’

f. meniŋ [$_{CP}$ kim-gä$_i$ [$_{IP}$ seniŋ t_i nurğun pul bar-gän]-
1SG.GEN who-DAT 2SG.GEN a.lot money give-PERF.NOML-
lik$_C$]-**iŋ**-ni bil-gü-m bar
COMP-2SG.POSS-ACC know-DES.NOML-1SG have

The sentence in (87a) antecedes the full-fledged embedded questions in (87b-c) and the corresponding reduced questions in (87d-e). In the full-fledged questions, their subjects are second-person singular pronouns. As a result, the possessive marker following the embedded clauses must be the second-person singular *iŋ*, as shown by the comparison between (87b) and (87c). Then, let us consider the reduced questions. If sluicing were involved, the reduced questions could be derived from (87b) by moving the *wh*-phrase, *kim-gä* ‘who-DAT,’ into the specifier position of CP, followed by IP deletion, as illustrated in (87f). Accordingly, the possessive marker following the reduced question should be the second-person singular *iŋ*. This prediction is not borne out because the presence of *iŋ* makes the reduced question unacceptable, as shown in (87e). The possessive marker in the reduced question must be the third-person *i*, as shown in (87d), which is not predicted by the sluicing analysis.

Let us add another set of data in which the subject of the full-fledged embedded question is the first-person pronoun.

(88) a. Män-Ø tünügün biraw-din nurğun pul qärz al-di-m,
1SG-NOM yesterday someone-ABL a.lot money loan SELF.AUX-PST-1SG
‘I borrowed a lot of money from someone yesterday,’

b. meniŋ aka-lar-im-niŋ [meniŋ tünügün kim-din

1SG.GEN elder.brother-PL-1SG.POSS-GEN 1SG.GEN yesterday who-ABL

nurğun pul qärz al-ğan-liq]-**im**-ni

a.lot money loan SELF.AUX-PERF.NOML-COMP-1SG.POSS-ACC

bil-gü-si bar.

know-DES.NOML-3PL have

‘my elder brothers want to know from whom I borrowed a lot of money yesterday.’

c.* meniŋ aka-lar-im-niŋ [meniŋ tünügün kim-din

1SG.GEN elder.brother-PL-1SG.POSS-GEN 1SG.GEN yesterday who-ABL

nurğun pul qärz al-ğan-liq]-**i**-ni

a.lot money loan SELF.AUX-PERF.NOML-COMP-3SG.POSS-ACC

bil-gü-si bar.

know-DES.NOML-3PL have

‘my elder brothers want to know from whom I borrowed a lot of money yesterday.’

d. meniŋ aka-lar-im-niŋ [kim(-*din) (ikän) lik]-

1SG.GEN elder.brother-PL-1SG.POSS-GEN who-ABL COP COMP-

i-ni bil-gü-si bar.

3SG.POSS-ACC know-DES.NOML-3PL have

‘my elder brothers want to know from whom.’

e.* meniŋ aka-lar-im-niŋ [kim (ikän) lik]-**im**-
1SG.GEN elder.brother-PL-1SG.POSS-GEN who COP COMP-1SG.POSS-
ni bil-gü-si bar.
ACC know-DES.NOML-3PL have
'my elder brothers want to know from whom.'

f. meniŋ aka-lar-im-niŋ [$_{CP}$ kim-din$_j$ [$_{IP}$ meniŋ
1SG.GEN elder.brother-PL-1SG.POSS-GEN who-ABL 1SG.GEN
tünügün t_j nurğun pul qärz al-ğan]-
yesterday a.lot money loan SELF.AUX-PERF.NOML-
liq$_C$]-**im**-ni bil-gü-si bar
COMP-1SG.POSS-ACC know-DES.NOML-3PL have

The sentence in (88a) serves to antecede the full-fledged embedded questions in (88b-c) and the corresponding reduced questions in (88d-e). The subjects of the full-fledged questions are first-person singular pronouns. Correspondingly, the embedded clauses can only be followed by the first-person possessive marker *im*, as shown in (88b). If the reduced question were derived from (88b) by moving the *wh*-phrase into the specifier position of CP followed by IP deletion, as indicated in (88f), then the first-person possessive *im* should appear in the reduced question. This prediction is not borne out because the reduced question can only be followed by the third-person singular *i*, as shown by the comparison between (88d) and (88e).

In addition, if sluicing were involved, the *wh*-remnants should be able to be case-marked in the same way as their correlates and the corresponding *wh*-phrases in the full-fledged *wh*-questions. However, the observation is that remnant phrases cannot be case-marked, as shown in (87d), (88d), and the examples discussed in the previous section. While cases like (87) and

(88) cannot be analyzed in terms of sluicing, they can be explained by the pseudo-sluicing analysis or the reduced cleft analysis.

4.3.3.2 The pseudo-sluicing analysis

According to Bai (2023a), reduced embedded single questions in Uyghur can be explained by the pseudo-sluicing analysis. Let us start our discussion with the example below.

(89) a. Biraw-Ø Murat-qa bir närsä sowğa qi-p-tu-Ø,
someone-NOM Murat-DAT one thing present AUX-ADVL-PST-3SG
'Someone gave Murat a thing,'

b. meniŋ [kim lik]-i-ni bil-gü-m bar.
1SG.GEN who COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who.'

c. meniŋ [kim ikän lik]-i-ni bil-gü-m bar.
1SG.GEN who COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who.'

d. meniŋ [*pro* kim (ikän) lik]-i-ni bil-gü-m bar
1SG.GEN he who COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who (he) was'

e. meniŋ [u-niŋ kim (ikän) lik]-i-ni bil-gü-m
1SG.GEN 3SG-GEN who COP COMP-3SG.POSS-ACC know-DES.NOML-1SG
bar.
have
'I want to know who he was.'

The sentence in (89a) is the antecedent of the reduced question in (89b) with an NP *wh*-remnant, accompanied by the COMP. Moreover, the copula *ikän* is allowed to appear in the reduced question, as shown in (89c). The fact that reduced questions in Uyghur contain the copula opens up the possibility that they may have a pseudo-sluicing structure with a null pronoun. The presence of a null pronoun should be allowed in Uyghur, a language allowing null arguments (Litip 2012). The pseudo-sluicing analysis of (89b-c) is shown in (89d), in which the reduced embedded clause includes an empty *pro*. In line with the pseudo-sluicing analysis, the null subject should be able to alternate with an overt pronominal subject. This prediction is indeed borne out, as illustrated in (89e).[11] In the pseudo-sluiced clause, the remnant *wh*-phrase is the complement of the copula and hence is not case-marked.

Let us look at another example.

[11] Copula-drop is independently observed in Uyghur, as illustrated in (i).

(i) a. Tursun-Ø [u-niŋ talantliq ikän lik]-i-ni bil-idu-Ø.
Tursun-NOM 3SG-GEN genius COP COMP-3SG.POSS-ACC know-NPST-3SG
'Tursun knows that he is a genius.'
b. Tursun-Ø [u-niŋ talantliq liq]-i-ni bil-idu-Ø.
Tursun-NOM 3SG-GEN genius COMP-3SG.POSS-ACC know-NPST-3SG

In (i), the presence of the copula *ikän* is optional.

(90) a. Murat-Ø mälum jay-din ayril-di-Ø,
Murat-NOM some place-ABL leave-PST-3SG
'Murat left from some place,'

b. meniŋ [qaysi jay (ikän) lik]-i-ni bil-gü-m
1SG.GEN which place COP COMP-3SG.POSS-ACC know-DES.NOML-1SG
bar.
have
'I want to know which place.'

c. meniŋ [*pro* qaysi jay (ikän) lik]-i-ni
1SG.GEN it which place COP COMP-3SG.POSS-ACC
bil-gü-m bar
know-DES.NOML-1SG have
'I want to know which place (it) was'

d. meniŋ [u-niŋ qaysi jay (ikän) lik]-i-ni
1SG.GEN 3SG-GEN which place COP COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have
'I want to know which place it was.'

The reduced question in (90b), which is anteceded by (90a), contains an adjunct *wh*-remnant, which can optionally be followed by the copula. In line with the pseudo-sluicing analysis, the

reduced question is analyzed as (90c) with a null pronominal subject. Furthermore, the null subject can be replaced by an overt pronominal subject, as shown in (90d).[12]

The truncated embedded clauses in (89-90) contain *wh*-remnants. In addition, cases with non-*wh*-remnants can be explained by the pseudo-sluicing analysis. See (91) below.

(91) a. Ayxan-Ø [Aygül-ni tünügün Ürümči-dä Inglizčä
Ayxan-NOM Aygül-ACC yesterday Urumqi-LOC.POSTP English
emtihan-ğa qatnaš-ti-Ø däp] oyla-ydu-Ø,
exam-DAT attend-PST-3SG COMP think-NPST-3SG
'Ayxan thinks that Aygül attended an English exam in Urumqi yesterday,'

b. lekin män-Ø [ülüškün (i-di-Ø) däp]
but 1SG-NOM the.day.before.yesterday COP-PST-3SG COMP
oyla-y-män.
think-NPST-1SG
'lit. but I think that the day before yesterday.'

c. lekin män-Ø [*pro* ülüškün (i-di-Ø) däp]
but 1SG-NOM it the.day.before.yesterday COP-PST-3SG COMP
oyla-y-män
think-NPST-1SG

[12] As mentioned in section 4.2, the complementizer *lik* in Uyghur has a phonetic variation, i.e., *liq*. The alternation depends on the processes of vowel harmony and consonant assimilation (Litip 2012). In reduced embedded questions, the COMP *lik* follows the copula *ikän*. The copula is optional in reduced single questions. When the copula is omitted, the complementizer should be *liq* in some examples such as (90). Since this alternation is a phonetic phenomenon, I will not further indicate it in the relevant examples in order to maintain the flow of argumentation.

‘but I think that (it) was the day before yesterday’

d. lekin män-Ø [u-ni ülüškün (i-di-Ø) däp]
but 1SG-NOM 3SG-ACC the.day.before.yesterday COP-PST-3SG COMP
oyla-y-män.
think-NPST-1SG
‘but I think that it was the day before yesterday.’

The sentence in (91a) antecedes the truncated embedded clause in (91b), which consists of the non-*wh*-remnant, the optional copula, and the COMP. In line with the pseudo-sluicing analysis, the truncated clause contains an empty subject, as illustrated in (91c). The empty subject can be replaced by an overt pronominal subject, as shown in (91d).

As discussed in section 4.3.2, reduced questions in Uyghur can be used felicitously without linguistic antecedents. This fact can be captured by the pseudo-sluicing analysis. See the data below.

(92) Context: The speaker hears someone screaming and says:
Täŋri-m, meniŋ [kim (ikän) lik]-i-ni bil-gü-m
god-1SG.POSS 1SG.GEN who COP COMP-3SG.POSS-ACC know-DES.NOML-1SG
bar.
have
‘Oh my god, I want to know who.’

(92) contains an utterance with a reduced indirect question, which is felicitous with the context given. The felicity of (92) can be accounted for if the reduced question involves a pronominal subject rather than sluicing. This prediction is borne out, as illustrated in (93).

(93) Context: The speaker hears someone screaming and says:

Täŋri-m, meniŋ [u-niŋ kim (ikän) lik]-i-ni
god-1SG.POSS 1SG.GEN 3SG-GEN who COP COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have
'Oh my god, I want to know who it was.'

(93) containing a pseudo-sluiced clause with an overt pronominal subject is acceptable under the context, which is not verbally expressed.

In addition, the pseudo-sluicing analysis can explain the observation that reduced questions in Uyghur lack island effects. See the example (94) below.

(94) a. Tursun-Ø [bir müšük-tin qorq-idiğan heliqi kiši]-ni
Tursun-NOM one cat-ABL fear-NPST.ADN that person-ACC
tänqidlä-di-Ø,
reprimand-PST-3SG
'Tursun reprimanded that person who fears a cat,'

b. män-Ø [qaysi müšük (ikän) lik]-i-gä qiziq-ip
1SG-NOM which cat COP COMP-3SG.POSS-DAT wonder-ADVL
qal-di-m.
AUX-PST-1SG
'I wonder which cat.'

c. män-Ø [u-niŋ qaysi müšük (ikän) lik]-i-gä qiziq-ip
1SG-NOM 3SG-GEN which cat COP COMP-3SG.POSS-DAT wonder-ADVL
qal-di-m.
AUX-PST-1SG
'I wonder which cat it is.'

The reduced question in (94b) is anteceded by (94a) containing a relative clause. The correlate of the *wh*-remnant, *qaysi müšük* 'which cat,' is inside the relative clause in (94a). The reduced question is acceptable, which can be explicated by the pseudo-sluicing analysis. A pseudo-sluiced clause with a nominal subject, as shown in (94c), does not involve an island. Accordingly, it follows that the relative clause island effect is not observed.

Let us look at another example, which involves the adjunct island.

(95) a. Tursun-Ø [Güli-Ø bir oğul bala-ğa amraq bol-ğačqa]
Tursun-NOM Güli-NOM one male child-DAT fond AUX-reason.ADVL
intayin xapa bol-di-Ø,
very angry be-PST-3SG
'Tursun was very angry because Güli was fond of a boy,'

b. män-Ø [kim (ikän) lik]-i-gä qiziq-ip qal-di-m.
1SG-NOM who COP COMP-3SG.POSS-DAT wonder-ADVL AUX-PST-1SG
'I wonder who.'

c. män-Ø [u-niŋ kim (ikän) lik]-i-gä qiziq-ip
1SG-NOM 3SG-GEN who COP COMP-3SG.POSS-DAT wonder-ADVL
qal-di-m.
AUX-PST-1SG
'I wonder who he was.'

The sentence in (95a), which contains an adverbial clause, antecedes the reduced question in (95b). The reduced question is acceptable, though the correlate of the remnant is inside the adjunct island. According to the pseudo-sluicing analysis, the reduced question allows the presence of a pronominal subject, as illustrated in (95c). Since the copular clause in (95c) does not include an island, it follows that the island effect does not emerge.

All the cases of reduced embedded questions we have considered are followed by the third-person possessive marker. This observation can be explained by the pseudo-sluicing analysis. Consider (88) again, repeated below as (96).

(96) a. Män-Ø tünügün biraw-din nurğun pul qärz al-di-m,
1SG-NOM yesterday someone-ABL a.lot money loan SELF.AUX-PST-1SG
'I borrowed a lot of money from someone yesterday,'

b. meniŋ aka-lar-im-niŋ [kim (ikän) lik]-**i/*im**-
1SG.GEN elder.brother-PL-1SG.POSS-GEN who COP COMP-3SG/1SG.POSS-
ni bil-gü-si bar.
ACC know-DES.NOML-3PL have
'my elder brothers want to know who.'

c. meniŋ aka-lar-im-niŋ [u-niŋ kim (ikän) lik]-
1SG.GEN elder.brother-PL-1SG.POSS-GEN 3SG-GEN who COP COMP-
i/*im-ni bil-gü-si bar.
3SG/1SG.POSS-ACC know-DES.NOML-3PL have
'my elder brothers want to know who he was.'

In the reduced question in (96b), which is anteceded by (96a), only the third-person possessive marker is acceptable. According to the pseudo-sluicing analysis, the reduced question is allowed to contain a pronominal subject, as shown in (96c). The embedded clause in (96c) is a copular clause. As discussed in section 4.2.2, the agreement marker agrees with the accessible DP in a copular clause. According to Gribanova (2013), "case-marked DPs are low on the accessibility scale and will not control agreement on the copula if there is a bare DP in the same clause" (Gribanova 2013, p.9). In the case of (96c), the pronominal subject and the *wh*-remnant are both in the third person. Since the pronominal subject is case-marked, the agreement marker *i* agrees with the *wh*-remnant, which is in the third person.

The discussions in the section demonstrate that the pseudo-sluicing analysis is a viable analysis accounting for some of the properties of reduced embedded questions illustrated in section 4.3.2. The presence of the copula in the reduced questions can be captured by this analysis. Moreover, since remnant phrases are the complements of the copulas, they are not

assigned case. In addition, the pseudo-sluicing analysis does not posit *wh*-movement in Uyghur, a *wh*-in-situ language.

It is worth noting that the observation that reduced questions in Uyghur permit the sloppy interpretation is difficult to explain under the pseudo-sluicing analysis. See the data below.

(97) a. Tursun-Ø [öz-i-niŋ nemä üčün iš-tin bošat-il-
Tursun-NOM self-3SG.POSS-GEN what POSTP thing-ABL fire-PASS-
ğan-liq]-i-ni bil-mä-ydu-Ø,
PERF.NOML-COMP-3SG.POSS-ACC know-NEG-NPST-3SG
'lit. Tursun doesn't know for what self was fired,'

b. lekin Aygül-Ø [nemä üčün (ikän) lik]-i-ni
but Aygül-NOM what POSTP COP COMP-3SG.POSS-ACC
bil-idu-Ø.
know-NPST-3SG
'but Aygül knows for what.'

c. lekin Aygül-Ø [*u-niŋ* nemä üčün (ikän) lik]-i-ni
but Aygül-NOM 3SG-GEN what POSTP COP COMP-3SG.POSS-ACC
bil-idu-Ø.
know-NPST-3SG
'but Aygül knows for what it was.'

The sentence in (97a) is intended to antecede the reduced question in (97b). (97b) allows not only the strict interpretation that *Aygül knows for what Tursun was fired* but also the sloppy interpretation that *Aygül knows for what Aygül herself was fired*. In line with the pseudo-

sluicing analysis, the reduced question allows the presence of an overt pronominal subject, as shown in (97c). In (97c), the strict interpretation is available, but the sloppy interpretation is not. Based on (97), we can see that the pseudo-sluicing analysis cannot account for the presence of the sloppy interpretation in reduced questions in Uyghur. According to the previous literature (e.g., Saito 2004), the sloppy interpretation of reduced embedded questions in Japanese can be explained by the reduced cleft analysis. The following subsection will consider whether the reduced cleft analysis is applicable to analyze reduced questions in Uyghur.

4.3.3.3 The reduced cleft analysis

The discussions in this part focus on the reduced cleft analysis of reduced embedded single questions in Uyghur (Bai 2023a). Let us first consider the example in (98).

(98) a. Ayxan-Ø bir kino kör-di-Ø,
Ayxan-NOM one movie watch-PST-3SG
'Ayxan watched a movie,'

b. lekin män-Ø [nemä kino (ikän) lik]-i-ni bil-mä-
but 1SG-NOM what movie COP COMP-3SG.POSS-ACC know-NEG-
y-män.
NPST-1SG
'but I don't know what movie.'

c. lekin män-Ø [[Ayxan-niŋ kör-gän-i]-niŋ nemä kino
but 1SG-NOM Ayxan-GEN watch-PERF.ADN-3SG.POSS-GEN what movie
(ikän) lik]-i-ni bil-mä-y-män.
COP COMP-3SG.POSS-ACC know-NEG-NPST-1SG
'but I don't know what movie it was that Ayxan watched.'

d. lekin män-Ø [[Ayxan-niŋ kör-gän-i]-niŋ nemä kino
but 1SG-NOM Ayxan-GEN watch-PERF.ADN-3SG.POSS-GEN what movie
(ikän) lik]-i-ni bil-mä-y-män
COP COMP-3SG.POSS-ACC know-NEG-NPST-1SG

The sentence in (98a) serves to antecede the reduced question in (98b) and the embedded cleft sentence in (98c). The reduced question contains an NP *wh*-remnant, followed by the copula *ikän*, which is in turn followed by the COMP. In the embedded cleft sentence in (98c), the presuppositional clause functions as the subject of the embedded clause and is assigned genitive case just like a subject of a non-finite complement clause. The presuppositional clause is in turn followed by the *wh*-pivot, the copula *ikän*, and the COMP. When the presuppositional clause of the embedded cleft sentence is dropped, as indicated in (98d), the resulting structure is identical to the reduced question in (98b).

Ellipsis of the presuppositional clauses, which serve as subjects, can be explained if subject ellipsis is independently allowed in Uyghur. Now let us examine whether subject ellipsis is permitted in Uyghur. Consider the data below:

(99) a. Tursun-Ø [öz-i-niŋ matematika muällim-i-ni
Tursun-NOM self-3SG.POSS-GEN math teacher-3SG.POSS-ACC
Firansuz til-i-ni sözlä-yälä-ydu-Ø däp]
French language-3SG.POSS-ACC speak-able-NPST-3SG COMP
oyla-ydu-Ø,
think-NPST-3SG
'lit. Tursun thinks that self's math teacher can speak French,'

b. biraq Aygül-Ø [*e* German til-i-ni sözlä-yälä-ydu-Ø
but Aygül-NOM German language-3SG.POSS-ACC speak-able-NPST-3SG
däp] oyla-ydu-Ø.
COMP think-NPST-3SG
'lit. but Aygül thinks that *e* can speak German.'

The sentence in (99a) serves as the antecedent for the sentence in (99b) with an empty subject. The strict interpretation that *Aygül thinks that Tursun's math teacher can speak German* is available. On the other hand, the sloppy interpretation that *Aygül thinks that Aygül's math teacher can speak German* cannot be obtained.

According to the previous literature (e.g., Şener and Takahashi 2010; Abe and Park 2016; Sakamoto 2017), the ban on the sloppy reading may be eased when null subjects appear in adjunct clauses. Now let us examine whether it is applicable to Uyghur.

(100) Context: Aygül has never studied French.

a. Tursun-Ø [öz-i-niŋ bala-si Ingliz til-
Tursun-NOM self-3SG.POSS-GEN child-3SG.POSS English language-
i-ni öginiš-kä bašla-ğačqa] xušal bol-di-Ø,
3SG.POSS-ACC study-DAT begin-reason.ADVL pleased AUX-PST-3SG
'lit. Tursun was pleased because self's child began to study English,'

b. Aygül-Ø [*e* Firansuz til-i-ni öginiš-kä
Aygül-NOM French language-3SG.POSS-ACC study-DAT
bašla-ğačqa] xušal bol-di-Ø.
begin-reason.ADVL pleased AUX-PST-3SG
'lit. Aygül was pleased because *e* began to study French.'

The sentence in (100a) functions to antecede the sentence in (100b) which contains an adverbial clause, indicated with brackets. The empty subject is inside the adverbial clause. According to my informants, the sloppy reading that *Aygül was pleased because Aygül's child began to study French* is available. The strict reading that *Aygül was pleased because Tursun's child began to study French* is also allowed.

In addition, let us examine whether null subjects in Uyghur allow the quantificational reading.

(101) a. Tursun-Ø [ötkän yil-i bäš-tin köpräk oquğuči-Ø
Tursun-NOM last year-3SG.POSS five-ABL many student-NOM
gerammatika ögän-gäčkä] xušal bol-di-Ø,
syntax study-reason.ADVL pleased AUX-PST-3SG
'Tursun was pleased because five or more students studied syntax last year,'

b. Aygül-Ø [bu yil *e* semantika ögän-gäčkä] xušal
Aygül-NOM this year semantics study-reason.ADVL pleased
bol-di-Ø.
AUX-PST-3SG
'lit. Aygül was pleased because *e* studied semantics this year.'

The sentence in (101a) antecedes the sentence in (101b) with an empty subject in the adverbial clause. (101b) yields the E-type reading that *Aygül was pleased because the set of students who studied syntax last year studied semantics this year*. Additionally, it yields the quantificational reading, in which the set of students who studied semantics this year is different from the set of students who studied syntax last year.

According to my study, subject ellipsis is constrained in Uyghur. Nevertheless, the sloppy reading and the quantificational reading are permitted in cases such as (100) and (101), in which the null subjects appear in adjunct clauses (see Şener and Takahashi 2010 and Sakamoto 2017 for similar observations in Turkish). In addition to subject ellipsis, clausal ellipsis is allowed in Uyghur, as shown in (102).

(102) a. Tursun-Ø [$_{CP}$ öz-i-niŋ nemä üčün iš-tin
Tursun-NOM self-3SG.POSS-GEN what POSTP thing-ABL
bošat-il-ğan-liq]-i-ni bil-mä-ydu-Ø.
fire-PASS-PERF.NOML-COMP-3SG.POSS-ACC know-NEG-NPST-3SG
'lit. Tursun doesn't know why self was fired,'
b. lekin Aygül-Ø *e*$_{CP}$ bil-idu-Ø.
but Aygül-NOM know-NPST-3SG

‘lit. but Aygül knows.’

The sentence in (102a), which is the antecedent of the sentence in (102b), contains a complement clause. (102b), on the other hand, contains an empty CP. The sloppy reading that *Aygül knows why Aygül herself was fired* is permitted. The strict reading that *Aygül knows why Tursun was fired* is also available.

To some extent, subject ellipsis and clausal ellipsis are permitted in Uyghur. Accordingly, eliding the presuppositional clauses of the embedded cleft sentences, which function as the subjects of the embedded clauses, should be allowed. Moreover, according to the anti-agreement hypothesis (e.g., Saito 2007; Takahashi 2014; 2020), “argument ellipsis is restricted to those arguments that are not in agreement relationship to functional categories” (Takahashi 2020, p.53). In consequence, when an argument does not participate in agreement checking, it should be able to undergo ellipsis. Now let us take another look at the embedded cleft sentence in (98c), repeated below as (103).

(103) lekin män-Ø [[Ayxan-niŋ kör-gän-i]-niŋ
but 1SG-NOM Ayxan-GEN watch-PERF.ADN-3SG.POSS-GEN
nemä kino (ikän) lik]-**i**-ni bil-mä-y-män.
what movie COP COMP-3SG.POSS-ACC know-NEG-NPST-1SG
‘but I don’t know what movie it was that Ayxan watched.’

In the embedded clause in (103), the third-person possessive agreement marker *i* agrees with the pivot of the cleft sentence, namely, *nemä kino* ‘what movie,’ but not with the presuppositional clause. According to Gribanova (2013), “agreement in copular clauses is

controlled by the features of the most ‘accessible’ DP in the clause, regardless of structural position. Case-marked DPs are low on the accessibility scale and will not control agreement on the copula if there is a bare DP in the same clause” (Gribanova 2013, p.9). In a word, the presuppositional clause, which is marked genitive, does not participate in agreement checking and can thereby undergo ellipsis.

Now let us return to the discussion on reduced questions.

(104) 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. meniŋ [qaysi-xil haywan(-*din) (ikän) lik]-i-ni
1SG.GEN which-CL animal-ABL COP COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have
‘I want to know which kind of animal.’

c. meniŋ [[Ayxan-niŋ qorq-idiğan-i]-niŋ qaysi-xil
1SG.GEN Ayxan-GEN fear-NPST.ADN-3SG.POSS-GEN which-CL
haywan (ikän) lik]-i-ni bil-gü-m bar.
animal COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
‘I want to know which kind of animal it is that Ayxan fears.’

d. meniŋ [[Ayxan-niŋ qorq-idiğan-i]-niŋ qaysi-xil
1SG.GEN Ayxan-GEN fear-NPST.ADN-3SG.POSS-GEN which-CL
haywan (ikän) lik]-i-ni bil-gü-m bar
animal COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have

The sentence in (104a) is the antecedent of the reduced question in (104b) and the full-fledged embedded cleft sentence in (104c). The correlate of the remnant is *bir-xil haywan* 'one-CL animal,' which is marked ablative. The *wh*-remnant, on the other hand, cannot be marked ablative. As discussed in section 4.3.2, remnants in the reduced questions cannot be case-marked. This observation can be captured by the reduced cleft analysis since pivots in the cleft sentences in Uyghur cannot be accompanied by case markers. Now let us apply subject ellipsis to the embedded cleft sentence in (104c), indicated with grey shading in (104d); the reduced question in (104b) is obtained.

As discussed in section 4.3.2, remnants in the reduced questions can be followed by postpositions, which can be explained by the reduced cleft analysis. See the data in (105) below.

(105) a. Aminä-Ø bir iš üčün u mašina-ni remont qil-
Aminä-NOM one thing POSTP that car-ACC repair AUX-
dur-di-Ø,
CAUS-PST-3SG
'Aminä had that car repaired for something,'

b. meniŋ [nemä üčün (ikän) lik]-i-ni bil-gü-m
1SG.GEN what POSTP COP COMP-3SG.POSS-ACC know-DES.NOML-1SG
bar.
have
'I want to know for what.'

c. meniŋ [[Aminä-niŋ u mašina-ni remont qil-dur-ğan-liq-
1SG.GEN Aminä-GEN that car-ACC repair AUX-CAUS-PERF.ADN-COMP-
i]-niŋ nemä üčün (ikän) lik]-i-ni
3SG.POSS-GEN what POSTP COP COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have
'I want to know for what it was that Amina had that car repaired.'

d. meniŋ [[Aminä-niŋ u mašina-ni remont qil-dur-ğan-liq-
1SG.GEN Aminä-GEN that car-ACC repair AUX-CAUS-PERF.ADN-COMP-
i]-niŋ nemä üčün (ikän) lik]-i-ni
3SG.POSS-GEN what POSTP COP COMP-3SG.POSS-ACC
bil-gü-m bar
know-DES.NOML-1SG have

The reduced question in (105b), which is anteceded by (105a), contains the *wh*-remnant, the postposition *üčün*, and the copula. The corresponding cleft sentence in (105c) includes the genitive-marked presuppositional clause, the *wh*-pivot, the postposition *üčün*, and the copula. When the presuppositional clause of the embedded cleft sentence is elided, as indicated in (105d), the reduced question is derived.

Up to this point, we have considered cases of reduced embedded clauses with *wh*-remnants. The reduced cleft analysis can also explain cases with non-*wh*-remnants. See the example (106) below.

(106) a. Ayxan-Ø [Aygül-ni tünügün Ürümči-dä Inglizčä
Ayxan-NOM Aygül-ACC yesterday Urumqi-LOC.POSTP English
emtihan-ğa qatnaš-ti-Ø däp] oyla-ydu-Ø,
exam-DAT attend-PST-3SG COMP think-NPST-3SG
'Ayxan thinks that Aygül attended an English exam in Urumqi yesterday,'

b. lekin män-Ø [[u-niŋ tünügün Ürümči-dä qatnaš-
but 1SG-NOM 3SG-GEN yesterday Urumqi-LOC.POSTP attend-
qan-i]-ni matematika emtihan däp] oyla-y-män.
PERF.ADN-3SG.POSS-ACC math exam COMP think-NPST-1SG
'but I think that it was a math exam that she attended in Urumqi yesterday.'

c.? lekin män-Ø [matematika emtihan däp] oyla-y-män.
but 1SG-NOM math exam COMP think-NPST-1SG
'lit. but I think that a math exam.'

d. lekin män-Ø [[u-niŋ tünügün Ürümči-dä qatnaš-
but 1SG-NOM 3SG-GEN yesterday Urumqi-LOC.POSTP attend-
qan-i]-ni matematika emtihan däp] oyla-y-män
PERF.ADN-3SG.POSS-ACC math exam COMP think-NPST-1SG

The sentence in (106a) serves to antecede the embedded cleft sentence in (106b) and the reduced embedded clause in (106c). The truncated embedded clause in (106c) containing the non-*wh*-remnant, followed by the COMP *däp*, is acceptable. The embedded cleft sentence contains an accusative-marked presuppositional clause, the non-*wh*-pivot, and the COMP *däp*. The accusative-marked presuppositional clause functions as the subject of the embedded clause, just like an accusative-marked subject in a finite complement clause in Uyghur. Applying

subject ellipsis to the embedded cleft sentence in (106b), indicated with grey shading in (106d), we can obtain (106c).

In the reduced questions we have discussed, only the third-person possessive agreement marker is allowed to appear. This observation can be captured by the reduced cleft analysis. Let us consider (87) again, repeated below as (107).

(107) a. Sän-Ø biraw-ğa nurğun pul bär-di-ŋ,
2SG-NOM someone-DAT a.lot money give-PST-2SG
'You gave someone a lot of money,'

b. meniŋ [kim(-*gä) (ikän) lik]-**i**-ni bil-gü-m
1SG.GEN who-DAT COP COMP-3SG.POSS-ACC know-DES.NOML-1SG
bar.
have
'I want to know who.'

c.* meniŋ [kim (ikän) lik]-**iŋ**-ni bil-gü-m bar.
1SG.GEN who COP COMP-2SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who.'

d. meniŋ [[seniŋ nurğun pul bär-gän-iŋ]-niŋ
1SG.GEN 2SG.GEN a.lot money give-PERF.ADN-2SG.POSS-GEN
kim(-*gä) (ikän) lik]-**i**-ni bil-gü-m bar.
who-DAT COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know to whom it was that you gave a lot of money.'

e. meniŋ [[seniŋ nurğun pul bär-gän-iŋ]-niŋ
1SG.GEN 2SG.GEN a.lot money give-PERF.ADN-2SG.POSS-GEN
kim(-*gä) (ikän) lik]-**i**-ni bil-gü-m bar
who-DAT COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have

(107a) is the antecedent of the reduced questions in (107b-c) and the embedded cleft sentence in (107d). In the reduced questions, the possessive marker following the embedded clause must be the third-person *i*. This observation can be explained by the reduced cleft analysis. As discussed in section 4.2.3, a possessive marker following an embedded cleft sentence agrees with the pivot in person and number. In the embedded cleft sentence in (107d), the pivot is a *wh*-phrase, which is in the third person. Accordingly, the possessive marker on (107d) must be the third-person *i*. Now let us delete the genitive-marked clausal subject of the cleft sentence, indicated by the grey shading in (107e), the reduced question in (107b) is obtained. As discussed in the previous section, cases like (87-88) can also be explained by the pseudo-sluicing analysis.

Importantly, the observation that the sloppy interpretation is allowed in reduced embedded questions in Uyghur can be captured by the reduced cleft analysis. Consider the data below:

(108) a. Tursun-Ø [öz-i-niŋ nemä üčün iš-tin bošat-il-
Tursun-NOM self-3SG.POSS-GEN what POSTP thing-ABL fire-PASS-
ğan-liq]-i-ni bil-mä-ydu-Ø,
PERF.NOML-COMP-3SG.POSS-ACC know-NEG-NPST-3SG
'lit. Tursun doesn't know for what self was fired,'

b. lekin Aygül-Ø [nemä üčün (ikän) lik]-i-ni
but Aygül-NOM what POSTP COP COMP-3SG.POSS-ACC
bil-idu-Ø.
know-NPST-3SG
'but Aygül knows for what.'

The reduced question in (108b) is anteceded by the sentence in (108a). As discussed in section 4.3.2, the reduced question permits the strict reading that *Aygül knows for what Tursun was fired* and the sloppy reading that *Aygül knows for what Aygül herself was fired*. The two interpretations can be accounted for by their respective full-fledged cleft counterparts, as illustrated in (109).

(109) a. lekin Aygül-Ø [[u-niŋ iš-tin bošat-il-ğan-liq-
but Aygül-NOM 3SG-GEN thing-ABL fire-PASS-PERF.ADN-COMP-
i]-niŋ nemä üčün (ikän) lik]-i-ni bil-idu-Ø.
3SG.POSS-GEN what POSTP COP COMP-3SG.POSS-ACC know-NPST-3SG
'but Aygül knows for what it was that he was fired.'

b. lekin Aygül-Ø [[öz-i-niŋ iš-tin bošat-il-ğan-
but Aygül-NOM self-3SG.POSS-GEN thing-ABL fire-PASS-PERF.ADN-
liq-i]-niŋ nemä üčün (ikän) lik]-i-ni bil-
COMP-3SG.POSS-GEN what POSTP COP COMP-3SG.POSS-ACC know-
idu-Ø.
NPST-3SG
'lit. but Aygül knows for what it was that self was fired.'

The strict interpretation of the reduced question in (108b) can be explained by (109a). The third-person subject of the presuppositional clause of the embedded cleft sentence in (109a) and the subject of the embedded clause in (108a), *öz* 'self,' refer to the same person, i.e., *Tursun*. Subject ellipsis can be applied to (109a) with the help of *vehicle change* (Fiengo and May 1994; Merchant 2001; Saito 2004). On the other hand, the sloppy reading of the reduced question in (108b) can be straightforwardly explained by (109b). In (109b), the bound anaphor *öz* 'self' appears in the presuppositional clause of the cleft sentence and takes *Aygül* as its antecedent (Major and Ozkan 2018). Subject ellipsis can be applied to (109b) because the identity requirement of ellipsis is satisfied with *öz* 'self' being the subject of the presuppositional clause of the embedded cleft sentence in (109b) and the subject of the embedded clause in (108a).

Further, the observation that reduced embedded questions in Uyghur are insensitive to island effects can be explained by the reduced cleft analysis. Consider the example below:

(110) a. Ular-Ø [bir-xil Balqan til-i-da sözlä-ydiğan
3PL-NOM one-CL Balkan language-3SG.POSS-POSTP speak-NPST.ADN
bir kiši]-ni yalla-di-Ø,
one person-ACC hire-PST-3PL
'They hired a person who speaks a Balkan language,'

b. män-Ø [qaysi-xil Balqan til-i (ikän) lik]-
1SG-NOM which-CL Balkan language-3SG.POSS COP COMP-
i-gä qiziq-ip qal-di-m.
3SG.POSS-DAT wonder-ADVL AUX-PST-1SG
'I wonder which Balkan language.'

The reduced question in (110b) is anteceded by the sentence in (110a) containing a relative clause. The correlate of the remnant *wh*-phrase is inside the relative clause. The reduced question is acceptable, indicating that reduced questions in Uyghur are insensitive to island effects.

Note that the cleft construction in Uyghur is sensitive to island effects (see the similar observation in the cleft construction in Turkish in İnce 2006; Sakamoto 2017). See the example below.

(111) * [Tursun-niŋ [relative clause __ qorq-idiğan heliqi kiši]-ni
Tursun-GEN fear-NPST.ADN that person-ACC
tänqidlä-gän-i] qaysi müšük ikän-Ø?
reprimand-PERF.ADN-3SG.POSS which cat COP-3SG
'lit. Which cat was it that Tursun reprimanded that person who fears __?'

In the cleft sentence in (111), the *wh*-pivot originates from the relative clause, which constitutes islands for movement in Uyghur (Öztürk 2013; Major 2014). The cleft sentence is completely degraded. The example shows that the cleft construction in Uyghur is sensitive to island effects. Accordingly, the full-fledged cleft counterpart of the reduced question in (110b) is not acceptable, as shown in (112a).

(112) a.* män-Ø [[Ular-niŋ [__ sözlä-ydiğan bir kiši]-ni
1SG-NOM 3PL-GEN speak-NPST.ADN one person-ACC
yalla-ğan-i]-niŋ qaysi-xil Balqan til-i
hire-PERF.ADN-3PL.POSS-GEN which-CL Balkan language-3SG.POSS
(ikän) lik]-i-gä qiziq-ip qal-di-m.
COP COMP-3SG.POSS-DAT wonder-ADVL AUX-PST-1SG
'lit. I wonder which Balkan language it was that they hired a person who speaks.'

b. män-Ø [[Ular-niŋ [__ sözlä-ydiğan bir kiši]-ni
1SG-NOM 3PL-GEN speak-NPST.ADN one person-ACC
yalla-ğan-i]-niŋ qaysi-xil Balqan til-i
hire-PERF.ADN-3PL.POSS-GEN which-CL Balkan language-3SG.POSS
(ikän) lik]-i-gä qiziq-ip qal-di-m
COP COMP-3SG.POSS-DAT wonder-ADVL AUX-PST-1SG

The reduced question in (110b) is derived when subject ellipsis is applied to the cleft sentence in (112a), indicated with grey shading in (112b). Since the relative clause island is inside the presuppositional clause, subject ellipsis may repair the island violation just as sluicing remedies island violations, as discussed in chapter 2 of this dissertation (e.g., Ross 1969; Merchant 2001).

The discussions in this subsection have shown that the reduced cleft analysis is a viable analysis explaining reduced embedded questions in Uyghur. However, cases of reduced questions with adverbial remnants cannot be explicated by the reduced cleft analysis. See the data in (113) below.

(113) a. Murat-Ø bu luğät-ni mälum jay-din sat-iwal-
Murat-NOM this dictionary-ACC some place-ABL sell-SELF.AUX-
di-Ø,
PST-3SG
'Murat bought this dictionary from some place,'

b. män-Ø [qäyär(-*din) (ikän) lik]-i-gä qiziq-ip
1SG-NOM where-ABL COP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'I wonder where.'

c.* män-Ø [[Murat-niŋ bu luğät-ni sat-iwal-ğan-
1SG-NOM Murat-GEN this dictionary-ACC sell-SELF.AUX-PERF.ADN-
i]-niŋ qäyär (ikän) lik]-i-gä qiziq-ip
3SG.POSS-GEN where COP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'I wonder where it was that Murat bought this dictionary.'

The sentence in (113a) is the antecedent of the reduced question in (113b) with the adverbial *wh*-remnant. While (113b) is acceptable, its cleft counterpart in (113c) is not. As discussed in section 4.2.3, the cleft construction in Uyghur does not allow adverbial pivots. The unacceptability of (113c) makes it difficult to analyze cases of reduced questions with adverbial

remnants under the reduced cleft analysis.[13] Cases of reduced questions like (113) can be accounted for by the pseudo-sluicing analysis.

4.3.3.4 Summary

I have discussed reduced embedded questions in Uyghur and argued that they can be analyzed in terms of the pseudo-sluicing analysis or the reduced cleft analysis. The pseudo-sluicing analyses can explain reduced questions with nominal remnants and adverbial remnants. It can capture the observation that the remnants in the reduced questions cannot be case-marked. The remnants are the complements of the copula and hence are not assigned case. However, the availability of the sloppy interpretation of the reduced questions cannot be captured by the pseudo-sluicing analysis.

The reduced cleft analysis can account for the observation that remnants in the reduced questions cannot be case-marked since the cleft construction in Uyghur does not allow case-marked pivots. Moreover, that the reduced questions permit the sloppy reading can be explicated by the reduced cleft analysis. The reduced cleft analysis involves subject ellipsis,

[13] Note that (113c) becomes acceptable when the NP *yär* appears in the presuppositional clause, as shown in (i).

(i) män-Ø [[Murat-niŋ bu luğät-ni sat-iwal-ğan
1SG-NOM Murat-GEN this dictionary-ACC sell-SELF.AUX-PERF.ADN
yär-i]-niŋ qäyär (ikän) lik]-i-gä qiziq-ip qal-di-m.
place-3SG.POSS-GEN where COP COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'I wonder where the place from which Murat bought this dictionary was.'

As discussed in section 4.2.3 of this chapter, cases like (i) are not cleft sentences. Rather, they are copular clauses containing a subject modified by a relative clause, a nominal complement, and a copula.

which can explain the availability of the sloppy interpretation in reduced questions. Nevertheless, the cleft analysis cannot explain cases of reduced questions with adverbial remnants because cleft sentences in Uyghur do not allow adverbial pivots.

In short, the pseudo-sluicing analysis and the reduced cleft analysis are both needed in order to fully account for reduced embedded questions in Uyghur.

4.4 Reduced embedded questions with multiple *wh*-phrases

This section discusses reduced embedded questions with multiple *wh*-phrases (RQMW) in Uyghur and proposes to analyze them in terms of an in-situ analysis.

4.4.1 Basic phenomena

This subsection focuses on illustrating reduced embedded questions with multiple remnants in Uyghur. Let us start our discussion with the data below.

(114) a. Bir qiz-Ø bir muällim-din birqančä soal-lar-ni
one girl-NOM one teacher-ABL some question-PL-ACC
sora-di-Ø,
ask-PST-3SG
'A girl asked a teacher some questions,'

b. meniŋ [qaysi qiz-niŋ qaysi muällim-din bäzi soal-lar-ni
1SG.GEN which girl-GEN which teacher-ABL some question-PL-ACC
sora-ğan-liq]-i-ni bil-gü-m bar.
ask-PERF.NOML-COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know which girl asked which teacher questions.'

c.?? meniŋ [qaysi qiz-niŋ qaysi muällim-din lik]-i-ni
1SG.GEN which girl-GEN which teacher-ABL COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have
'lit. I want to know which girl which teacher.'

d.? meniŋ [qaysi qiz-niŋ qaysi muällim-din ikän lik]-i-ni
1SG.GEN which girl-GEN which teacher-ABL COP COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have
'lit. I want to know which girl which teacher.'

The sentence in (114a) antecedes the full-fledged embedded question in (114b) and the reduced question in (114c). Reduction of (114b) yields (114c), containing two NP *wh*-remnants followed by the COMP, which is in turn followed by the possessive agreement marker and the accusative marker assigned to the embedded clause by the matrix predicate *bil* 'know.' The reduced question in (114c) is somewhat degraded. It becomes more acceptable when the copula *ikän* appears in the reduced question, as shown in (114d).

The remnants in the reduced questions in (114) are two NP *wh*-phrases. RQMW in Uyghur also allow the presence of adjunct remnants. Consider (115):

(115) a. Murat-Ø mälum jay-din mälum kiši-gä bir sowǧat
Murat-NOM some place-ABL some person-DAT one present
äwät-ti-Ø,
send-PST-3SG
'Murat sent a present to someone from some place,'

b. män-Ø [u-niŋ qäyär-din kim-gä sowǧat äwät-kän-
1SG-NOM 3SG-GEN where-ABL who-DAT present send-PERF.NOML-
lik]-i-gä qiziq-ip qal-di-m.
COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'I wonder to whom he sent a present from where.'

c.?? män-Ø [qäyär-din kim-gä lik]-i-gä qiziq-ip
1SG-NOM where-ABL who-DAT COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'lit. I wonder to whom from where.'

d.? män-Ø [qäyär-din kim-gä ikän lik]-i-gä qiziq-ip
1SG-NOM where-ABL who-DAT COP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'lit. I wonder to whom from where.'

The sentence in (115a) is the antecedent of the full-fledged embedded question in (115b) and the reduced questions in (115c-d). The reduced question contains an ablative-marked adjunct

wh-remnant and a dative-marked NP *wh*-remnant, followed by the COMP, which is then followed by the agreement marker and the dative marker assigned to the embedded clause by the matrix predicate *wonder*. The reduced question becomes more acceptable when the copula *ikän* is present, as shown in (115d).

Next, let us look at an example with two adjunct *wh*-remnants.

(116) a. Murat-Ø bir čağ-da bir yär-dä naxša
Murat-NOM one time-TEM.POSTP one place-LOC.POSTP song
oqu-di-Ø,
sing-PST-3SG
'Murat sang songs at someplace at some time,'

b. män-Ø [u-niŋ qačan qäyär-dä naxša oqu-ğan-
1SG-NOM 3SG-GEN when where-LOC.POSTP song sing-PERF.NOML-
liq]-i-ğa qiziq-ip qal-di-m.
COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'I wonder where he sang songs when.'

c.?? män-Ø [qačan qäyär-dä lik]-i-ğa qiziq-ip
1SG-NOM when where-LOC.POSTP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'lit. I wonder where when.'

d.? män-Ø [qačan qäyär-dä ikän lik]-i-ğa qiziq-ip
1SG-NOM when where-LOC.POSTP COP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'lit. I wonder where when.'

The full-fledged embedded multiple *wh*-question in (116b) and the reduced questions in (116c-d) take (116a) as their antecedent. Reduction of the full-fledged embedded question in (116b) yields (116c) with two adjunct *wh*-remnants. Again, the reduced question is more acceptable with the copula present.

Additionally, RQMW in Uyghur allow the presence of more than two remnants, as illustrated in (117).

(117) a. Aygül-Ø bir čağ-da bir iš üčün mälum šähär-din
Aygül-NOM one time-TEM.POSTP one thing POSTP some city-ABL
ayril-di-Ø,
leave-PST-3SG
'Aygül left from some city at a certain time for something,'

b. meniŋ [u-niŋ qaysi waqit-ta nemä iš üčün qaysi
1SG.GEN 3SG-GEN which time-TEM.POSTP what thing POSTP which
šähär-din ayril-ğan-liq]-i-ni bil-gü-m bar.
city-ABL leave-PERF.NOML-COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know from which city she left at what time for what.'

c.?? meniŋ [qaysi waqit-ta nemä iš üčün qaysi šähär-din
1SG.GEN which time-TEM.POSTP what thing POSTP which city-ABL
lik]-i-ni bil-gü-m bar.
COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'lit. I want to know from which city at what time for what.'

d.? meniŋ [qaysi waqit-ta nemä iš üčün qaysi šähär-din
1SG.GEN which time-TEM.POSTP what thing POSTP which city-ABL
ikän lik]-i-ni bil-gü-m bar.
COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'lit. I want to know from which city at what time for what.'

The sentence in (117a) is the antecedent of the full-fledged embedded question in (117b) and the reduced questions in (117c-d) with three remnant phrases. Again, the reduced question is more acceptable when it includes the copula.

The discussions in this subsection have shown that reduced questions with multiple remnants in Uyghur are a marked construction. Further, the presence of the copula *ikän* makes the relevant sentences more acceptable.

4.4.2 Properties

This subsection illustrates the properties of reduced embedded questions with multiple remnants in Uyghur.

4.4.2.1 The case-matching effect

In reduced embedded questions with multiple remnants in Uyghur, each of the remnant phrases must be accompanied by case markers. Otherwise, the relevant construction is degraded. Consider the example below:

(118) a. Biz-niŋ matematika muällim-imiz bir oquğuči-ni bir
1PL-GEN math teacher-1PL.POSS one student-ACC one
sinip-qa kir-güz-di-Ø,
classroom-DAT enter-CAUS-PST-3SG
'The math teacher of our class let a student enter a classroom,'

b. lekin män-Ø [u-niŋ kim-ni qaysi sinip-qa kir-
but 1SG-NOM 3SG-GEN who-ACC which classroom-DAT enter-
güz-gän-lik]-i-ni bil-mä-y-män.
CAUS-PERF.NOML-COMP-3SG.POSS-ACC know-NEG-NPST-1SG
'but I don't know whom he let enter which classroom.'

c.? lekin män-Ø [kim-**ni** qaysi sinip-**qa** ikän lik]-i-ni
but 1SG-NOM who-ACC which classroom-DAT COP COMP-3SG.POSS-ACC
bil-mä-y-män.
know-NEG-NPST-1SG
'lit. but I don't know whom which classroom.'

d.* lekin män-Ø [kim-ni qaysi sinip ikän lik]-i-ni
but 1SG-NOM who-ACC which classroom COP COMP-3SG.POSS-ACC
bil-mä-y-män.
know-NEG-NPST-1SG
'lit. but I don't know whom which classroom.'

e.* lekin män-Ø [kim qaysi sinip-qa ikän lik]-i-ni
but 1SG-NOM who which classroom-DAT COP COMP-3SG.POSS-ACC
bil-mä-y-män.
know-NEG-NPST-1SG
'lit. but I don't know whom which classroom.'

f.* lekin män-Ø [kim qaysi sinip ikän lik]-i-ni
but 1SG-NOM who which classroom COP COMP-3SG.POSS-ACC
bil-mä-y-män.
know-NEG-NPST-1SG
'lit. but I don't know whom which classroom.'

The sentence in (118a) antecedes the full-fledged embedded question in (118b) and the reduced question in (118c). (118a) is a causative construction, where the causee, *bir oquğuči* 'one student,' is marked accusative, and the internal argument of the predicate, *bir sinip* 'one classroom,' is marked dative. Correspondingly, the cases of the *wh*-remnants match those of their respective correlates. That is, in (118c), *kim* 'who' is assigned accusative case, and *qaysi sinip* 'which classroom' is assigned dative case. Importantly, the case-marking on the *wh*-remnants is obligatory. If one of the remnants or both are not case-marked, the relevant reduced questions are not acceptable, as illustrated in (118d-f).

Let us look at another example.

(119) a. Aygül-Ø bir čağ-da mälum šähär-din ayril-di-Ø,
Aygül-NOM one time-TEM.POSTP some city-ABL leave-PST-3SG
'Aygül left from some city at a certain time,'

b. meniŋ [u-niŋ qaysi waqit-ta qaysi šähär-din
1SG.GEN 3SG-GEN which time-TEM.POSTP which city-ABL
ayril-ğan-liq]-i-ni bil-gü-m bar.
leave-PERF.NOML-COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know from which city she left at what time.'

c.? meniŋ [qaysi waqit-**ta** qaysi šähär-**din** ikän lik]-
1SG.GEN which time-TEM.POSTP which city-ABL COP COMP-
i-ni bil-gü-m bar.
3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know from which city at what time.'

d.* meniŋ [qaysi waqit-ta qaysi šähär ikän lik]-i-
1SG.GEN which time-TEM.POSTP which city COP COMP-3SG.POSS-
ni bil-gü-m bar.
ACC know-DES.NOML-1SG have
'I want to know from which city at what time.'

e.* meniŋ [qaysi waqit qaysi šähär-din ikän lik]-i-ni
1SG.GEN which time which city-ABL COP COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have

‘I want to know from which city at what time.’

f.* meniŋ [qaysi waqit qaysi šähär ikän lik]-i-ni
1SG.GEN which time which city COP COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have
‘I want to know from which city at what time.’

The full-fledged question in (119b) and the reduced question in (119c) take (119a) as their antecedent. The reduced question contains two *wh*-remnants, which are obligatorily case-marked, as revealed by the unacceptability of (119d-f).

Let us add one more set of data involving postpositions.

(120) a. Murat-Ø tünügün mälum sinip-ta bir qiz bilän
Murat-NOM yesterday some classroom-LOC.POSTP one girl POSTP
paraŋlaš-ti-Ø,
chat-PST-3SG
‘Murat chatted with a girl in a classroom yesterday,’

b. män-Ø [u-niŋ qaysi sinip-ta kim bilän
1SG-NOM 3SG-GEN which classroom-LOC.POSTP who POSTP
paraŋlaš-qan-liq]-i-ğa qiziq-ip qal-di-m.
chat-PERF.NOML-COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
‘I wonder with whom Murat chatted in which classroom yesterday.’

c.? män-Ø [qaysi sinip-**ta** kim **bilän** ikän lik]-i-
1SG-NOM which classroom-LOC.POSTP who POSTP COP COMP-3SG.POSS-
gä qiziq-ip qal-di-m.
DAT excite-ADVL AUX-PST-1SG
'I wonder with whom in which classroom.'

d.* män-Ø [qaysi sinip-ta kim ikän lik]-i-gä
1SG-NOM which classroom-LOC.POSTP who COP COMP-3SG.POSS-DAT
qiziq-ip qal-di-m.
excite-ADVL AUX-PST-1SG
'I wonder with whom in which classroom.'

e.* män-Ø [qaysi sinip kim bilän ikän lik]-i-gä
1SG-NOM which classroom who POSTP COP COMP-3SG.POSS-DAT
qiziq-ip qal-di-m.
excite-ADVL AUX-PST-1SG
'I wonder with whom in which classroom.'

f.* män-Ø [qaysi sinip kim ikän lik]-i-gä
1SG-NOM which classroom who COP COMP-3SG.POSS-DAT
qiziq-ip qal-di-m.
excite-ADVL AUX-PST-1SG
'I wonder with whom in which classroom.'

The sentence in (120a) serves to antecede the full-fledged embedded question in (120b) and the reduced questions in (120c-f). Both remnants must be accompanied by postpositions just like their respective correlates in (120a).

The discussion in this subsection has shown that the case-matching effect is observed in reduced questions with multiple remnants in Uyghur.

4.4.2.2 The island-insensitivity effect

Now let us examine whether RQMW in Uyghur are sensitive to island effects. Let us first consider a sentence containing an adverbial clause in (121) below.

(121) a. Tursun-Ø [Murat-Ø qaysi qiz-ni tamaq-qa täklip
Tursun-NOM Murat-NOM which girl-ACC meal-DAT invitation
qil-ğačqa] xapa bol-di-Ø?
AUX-reason.AUX angry COP-PST-3SG
'lit. Which girl was Tursun angry because Murat invited to have a meal?'

b.* Qaysi qiz-ni Tursun-Ø [Murat-Ø *t* tamaq-qa täklip
which girl-ACC Tursun-NOM Murat-NOM meal-DAT invitation
qil-ğačqa] xapa bol-di-Ø?
AUX-reason.AUX angry COP-PST-3SG
'lit. Which girl was Tursun angry because Murat invited to have a meal?'

The sentence (121a), which includes an adverbial clause, is acceptable with the in-situ *wh*-phrase. Now let us move the *wh*-phrase to the initial position of the sentence, as in (121b); the resulting sentence is completely degraded. Since clause-internal scrambling and long-distance scrambling are both allowed in Uyghur (Öztürk 2013), the unacceptability of moving an

element out of adverbial clauses indicates that adverbial clauses constitute islands for movement in Uyghur, as discussed in section 4.2.1 in this chapter.

Now let us consider the following reduced embedded question where the correlates of the *wh*-remnants are inside the adjunct island.

(122) a. Tursun-Ø [bir oğul bala-Ø bir qiz-ğa bir närsä sowğa
Tursun-NOM one male child-NOM one girl-DAT one thing present
qil-ğačqa] intayin xapa bol-di-Ø,
AUX-reason.AUX very angry COP-PST-3SG
'Tursun was very angry because some boy gave a thing to some girl,'

b.? män-Ø [qaysi oğul bala-Ø qaysi qiz-ğa ikän lik]-
1SG-NOM which male child-NOM which girl-DAT COP COMP-
i-gä qiziq-ip qal-di-m.
3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'I wonder which boy to which girl.'

The sentence in (122a) antecedes the reduced question in (122b) with two *wh*-remnants. The correlates of the remnants are *bir oğul bala-Ø* 'one male child-NOM' and *bir qiz-ğa* 'one girl-DAT,' which are inside the adjunct island. The reduced question is acceptable, indicating that reduced questions in Uyghur are not sensitive to the adjunct island.

Next, let us examine whether RQMW in Uyghur are sensitive to the appositive clause island. Let us start our discussion with a sentence containing an appositive clause, as in (123).

(123) a. Män-Ø [Tursun-Ø Güli-ni yaxši kör-idu-Ø dä-gän]
1SG-NOM Tursun-NOM Güli-ACC good see-NPST-3SG say-PERF.NOML
gäp-ni aŋla-p qal-di-m.
gossip-ACC hear-ADVL AUX-PST-1SG
'I heard the gossip that Tursun likes Güli.'

b.* Güli-ni män-Ø [Tursun-Ø *t* yaxši kör-idu-Ø dä-gän]
Güli-ACC 1SG-NOM Tursun-NOM good see-NPST-3SG say-PERF.NOML
gäp-ni aŋla-p qal-di-m.
gossip-ACC hear-ADVL AUX-PST-1SG
'lit. Güli, I heard the gossip that Tursun likes.'

The sentence in (123a) contains an appositive clause, indicated with brackets. In the appositive clause, the subject is marked nominative, and the predicate is followed by a tense suffix and an agreement marker. Now let us move the internal argument of the embedded predicate, *Güli-ni* 'Güli-ACC,' to the initial position of the sentence, as shown in (123b); the resulting sentence is not acceptable.

Let us look at another example.

(124) a. Män-Ø [Tursun-Ø u muällim-din bir soal-ni sora-
1SG-NOM Tursun-NOM that teacher-ABL one question-ACC ask-
p-tu-Ø dä-gän] gäp-ni aŋlä-p qal-di-m.
ADVL-PST-3SG say-PERF.NOML gossip-ACC hear-ADVL AUX-PST-1SG
'I heard the gossip that Tursun asked that teacher a certain question.'

b.* Bir soal-ni män-Ø [Tursun-Ø u muällim-din *t*
one question-ACC 1SG-NOM Tursun-NOM that teacher-ABL
sora-p-tu-Ø dä-gän] gäp-ni aŋlä-p qal-di-m.
ask-ADVL-PST-3SG say-PERF.NOML gossip-ACC hear-ADVL AUX-PST-1SG
'lit. A certain question, I heard the gossip that Tursun asked that teacher.'

The sentence in (124a) contains an appositive clause, indicated with brackets. Moving an element, such as *bir soal-ni* 'one question-ACC,' out of the appositive clause to the initial position of the sentence renders the sentence unacceptable, as shown in (124b). Since clause-internal scrambling and long-distance scrambling are both allowed in Uyghur (Öztürk 2013), the unacceptability of (123b) and (124b) shows that appositive clauses constitute islands for movement in Uyghur.

Now let us examine whether the appositive clause island effect is observed in RQMW in Uyghur.

(125) a. Güli-Ø [Murat-Ø bir qiz bilän mälum jay-da sayahät
Güli-NOM Murat-NOM one girl POSTP some place-LOC.POSTP travel
qi-p-tu-Ø dä-gän] gäp-ni aŋla-p
AUX-ADVL-PST-3SG say-PERF.NOML gossip-ACC hear-ADVL
qa-p-tu-Ø,
AUX-ADVL-PST-3SG
'Güli heard the gossip that Murat traveled with a girl at some place,'

b.? män-Ø [qaysi qiz bilän qäyär-dä ikän lik]-i-ğa
1SG-NOM which girl POSTP where-LOC.POSTP COP COMP-3SG.POSS-DAT
qiziq-ip qal-di-m.
excite-ADVL AUX-PST-1SG
'lit. I wonder with which girl where.'

The sentence in (125a) functions to antecede the reduced question in (125b). The correlates of the remnant phrases are inside the appositive clause island. The reduced question is acceptable. The discussions in this subsection have revealed that RQMW in Uyghur are insensitive to island effects.

4.4.2.3 The absence of the clause-mate effect

According to my study, reduced embedded questions with multiple remnants in Uyghur do not adhere to the clause-mate condition (e.g., Merchant 2001; Abels and Dayal 2022). That is, the remnant *wh*-phrases in RQMW can originate from different clauses. Let us start our discussion with the example below.

(126) a. Güli-Ø Ayxan-ğa [Murat-niŋ bir sinip-ta bir qiz
Güli-NOM Ayxan-DAT Murat-GEN one classroom-LOC.POSTP one girl
bilän paranglaš-qan-liq]-i-ni eyt-ip bär-di-Ø,
POSTP chat-PERF.NOML-COMP-3SG.POSS-ACC say-ADVL AUX-PST-3SG
'Güli told Ayxan that Murat chatted with a girl in a classroom,'

b. män-Ø [Güli-niŋ Ayxan-ğa [Murat-niŋ qaysi sinip-ta
1SG-NOM Güli-GEN Ayxan-DAT Murat-GEN which classroom-LOC.POSTP
qaysi qiz bilän paranglaš-qan-liq]-i-ni eyt-ip
which girl POSTP chat-PERF.NOML-COMP-3SG.POSS-ACC say-ADVL
bär-gän-lik]-i-gä qiziq-ip qal-di-m.
AUX-PERF.NOML-COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'I wonder with which girl Güli told Ayxan that Murat chatted in which classroom.'

c.? män-Ø [qaysi sinip-ta qaysi qiz bilän
1SG-NOM which classroom-LOC.POSTP which girl POSTP
ikän lik]-i-gä qiziq-ip qal-di-m.
COP COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'I wonder with which girl in which classroom.'

The sentence in (126a) is intended to antecede the full-fledged embedded multiple *wh*-question in (126b) and the reduced question in (126c). The full-fledged question, which contains two in-situ *wh*-phrases, is acceptable. Reduction of (126b) yields (126c). The reduced question in (126c) includes two *wh*-remnants, whose correlates both belong to the complement clause in (126a). The reduced question is acceptable with the *wh*-remnants being clause-mates.

Let us look at another example.

(127) a. Aygül-Ø Ayxan-ğa [Murat-niŋ bir soal-ni biraw-din
Aygül-NOM Ayxan-DAT Murat-GEN one question-ACC someone-ABL
sora-ğan-liq]-i-ni eyt-ip bär-di-Ø,
ask-PERF.NOML-COMP-3SG.POSS-ACC say-ADVL AUX-PST-3SG
'Aygül told Ayxan that Murat asked someone a certain question,'

b.? meniŋ [nemä soal-ni kim-din ikän lik]-i-ni
1SG.GEN what question-ACC who-ABL COP COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have
'lit. I want to know whom what question.'

The sentence in (127a) is the antecedent of the reduced question in (127b). The correlates of the two *wh*-remnants, i.e., *bir soal-ni* 'one question-ACC' and *biraw-din* 'someone-ABL,' both belong to the non-finite complement clause in (127a). The reduced question, in which the remnants are clause-mates, is acceptable.

Then, let us examine what happens when the *wh*-remnants are not clause-mates. Consider (128):

(128) a. Güli-Ø biraw-ğa [Murat-niŋ bir sinip-ta Aygül
Güli-NOM someone-DAT Murat-GEN one classroom-LOC.POSTP Aygül
bilän paranglaš-qan-liq]-i-ni eyt-ip bär-di-Ø,
POSTP chat-PERF.NOML-COMP-3SG.POSS-ACC say-ADVL AUX-PST-3SG
'Güli told someone that Murat chatted with Aygül in a classroom,'

b. män-Ø [Güli-niŋ kim-gä [Murat-niŋ qaysi sinip-ta
1SG-NOM Güli-GEN who-DAT Murat-GEN which classroom-LOC.POSTP
Aygül bilän paranglaš-qan-liq]-i-ni eyt-ip
Aygül POSTP chat-PERF.NOML-COMP-3SG.POSS-ACC say-ADVL
bär-gän-lik]-i-gä qiziq-ip qal-di-m.
AUX-PERF.NOML-COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'I wonder whom Güli told that Murat chatted with Aygül in which classroom.'

c.? män-Ø [kim-gä qaysi sinip-ta ikän lik]-i-gä
1SG-NOM who-DAT which classroom-LOC.POSTP COP COMP-3SG.POSS-DAT
qiziq-ip qal-di-m.
excite-ADVL AUX-PST-1SG
'lit. I wonder whom in which classroom.'

The sentence in (128a) is the antecedent of the complete embedded multiple question in (128b) and the reduced question in (128c). The correlates of the *wh*-phrases are *biraw-ğa* 'someone-DAT' in the matrix clause and *bir sinip-ta* 'one classroom-LOC.POSTP' in the embedded clause. The full-fledged question is acceptable with two in-situ *wh*-phrases. According to my informants, the reduced question, in which the first remnant *kim-gä* 'who-DAT' comes from the matrix clause and the second remnant *qaysi sinip-ta* 'which classroom-LOC.POSTP' is from the embedded clause, is also acceptable.[14]

This observation is confirmed by the following data.

[14] As mentioned in section 4.4.1, reduced questions with multiple remnants are a marked construction in Uyghur. According to my study, there are speakers who do not accept cases of reduced questions with multiple remnants. Accordingly, those speakers do not accept cases like (128-129), either.

(129) a. Güli-Ø biraw-ğa [Murat-niŋ awu luğät-ni mälum
Güli-NOM someone-DAT Murat-GEN that dictionary-ACC some
jay-din sat-iwal-ğan-liq]-i-ni eyt-ip
place-ABL sell-SELF.AUX-PERF.NOML-COMP-3SG.POSS-ACC say-ADVL
bär-di-Ø,
AUX-PST-3SG
'Güli told someone that Murat bought that dictionary from some place,'

b.? meniŋ [kim-gä, qäyär-din ikän lik]-i-ni
1SG.GEN who-DAT where-ABL COP COMP-3SG.POSS-ACC
bil-gü-m bar.
know-DES.NOML-1SG have
'lit. I want to know whom from where.'

The reduced question in (129b) contains two case-marked *wh*-remnants, whose correlates in the antecedent clause in (129a), i.e., *biraw-ğa* 'someone-DAT' and *mälum jay-din* 'some place-ABL,' do not belong to the same clause. Although it is difficult to parse the reduced question, it is acceptable.

The discussion in this subsection has revealed that reduced questions with multiple remnants in Uyghur do not adhere to the clause-mate condition.

4.4.3 Analyses

The section discusses theoretical analyses of reduced embedded questions with multiple remnants in Uyghur.

4.4.3.1 Arguments against the pseudo-sluicing analysis

As discussed in section 4.3, the pseudo-sluicing analysis is a valid analysis explaining reduced embedded single questions in Uyghur. Subsequently, the question is whether the pseudo-sluicing analysis can account for RQMW in the language. I argue that RQMW cannot be analyzed in terms of the pseudo-sluicing analysis. Consider the data below:

(130) a. Bir qiz-Ø bir muällim-din birqančä soal-lar-ni
one girl-NOM one teacher-ABL some question-PL-ACC
sora-di-Ø,
ask-PST-3SG
'A girl asked a teacher some questions,'

b.? meniŋ [qaysi qiz-niŋ qaysi muällim-din ikän lik]-i-
1SG.GEN which girl-GEN which teacher-ABL COP COMP-3SG.POSS-
ni bil-gü-m bar.
ACC know-DES.NOML-1SG have
'lit. I want to know which girl which teacher.'

c. meniŋ [*pro* qaysi qiz-niŋ qaysi muällim-din ikän lik]-
1SG.GEN which girl-GEN which teacher-ABL COP COMP-
i-ni bil-gü-m bar
3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know (it) was which girl which teacher'

d.* meniŋ [u-niŋ qaysi qiz-niŋ qaysi muällim-din
1SG.GEN 3SG-GEN which girl-GEN which teacher-ABL
ikän lik]-i-ni bil-gü-m bar.
COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'lit. I want to know it was which girl which teacher.'

The sentence in (130a) antecedes the reduced question in (130b) consisting of two *wh*-remnants and the copula *ikän*. In line with the pseudo-sluicing analysis, the reduced question is analyzed as (130c) containing an empty pronominal subject. As predicted by the pseudo-sluicing analysis, the empty pronoun should be able to alternate with an overt pronoun, as shown in (130d). (130d) containing the pseudo-sluiced clause with the overt pronominal subject is not acceptable, showing that cases of reduced questions with multiple remnants cannot be analyzed in terms of the pseudo-sluicing analysis.

4.4.3.2 Arguments against the reduced cleft analysis

As discussed in section 4.3, reduced embedded single questions in Uyghur can be analyzed in terms of the reduced cleft analysis. Then the question of whether RQMW can be explained by

the reduced cleft analysis arises. I argue that they cannot be analyzed in terms of the reduced cleft analysis because there are discrepancies between the cleft construction in Uyghur and reduced questions with multiple remnants. The main discrepancy is that the cleft construction in Uyghur does not allow the presence of multiple pivots. See (131) for an illustration.

(131) a.* [U-niŋ bär-gän-i] kim-gä nemä-ni?
3SG-GEN give-PERF.ADN-3SG.POSS who-DAT what-ACC
'lit. What to whom was it that he gave?'

b.?* [U-niŋ bär-gän-i] kim-gä nemä?
3SG-GEN give-PERF.ADN-3SG.POSS who-DAT what

c.* [U-niŋ bär-gän-i] kim nemä-ni?
3SG-GEN give-PERF.ADN-3SG.POSS who what-ACC

d.* [U-niŋ bär-gän-i] kim nemä?
3SG-GEN give-PERF.ADN-3SG.POSS who what

As shown in (131), multiple pivots are not allowed in the cleft construction. Accordingly, RQMW cannot be derived from cleft sentences, as exemplified in (132).

(132) a. Murat-Ø mälum jay-din mälum kiši-gä bir sowğat
Murat-NOM some place-ABL some person-DAT one present
äwät-ti-Ø,
send-PST-3SG
'Murat sent a present to someone from some place,'

b.? män-Ø [qäyär-din kim-gä ikän lik]-i-gä qiziq-ip
1SG-NOM where-ABL who-DAT COP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'lit. I wonder to whom from where.'

c.* män-Ø [[u-niŋ bir sowǧat äwät-kän-i]-niŋ qäyär-din
1SG-NOM 3SG-GEN one present send-PERF.ADN-3SG.POSS-GEN where-ABL
kim-gä ikän lik]-i-gä qiziq-ip qal-di-m.
who-DAT COP COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'lit. I wonder to whom from where it was that he sent a present.'

The sentence in (132a) is the antecedent of the reduced question with two remnants in (132b) and the embedded multiple cleft sentence in (132c). While the reduced question is acceptable, the multiple cleft sentence is not. Accordingly, RQMW in Uyghur cannot be analyzed in terms of the reduced cleft analysis.

4.4.3.3 Arguments against a focus movement analysis

This subsection provides arguments against a focus movement analysis. Before looking at the relevant data, let us first consider an in-situ focus construction in Uyghur.

(133) a. Murat-Ø saŋa bu zänjir-ni bär-di-Ø.
Murat-NOM 2SG.DAT this necklace-ACC give-PST-3SG

‘Murat gave this necklace to you.’

b. [e_i saŋa bu zänjir-ni bär-gän] Murat$_i$ ikän-Ø.
2SG.DAT this necklace-ACC give-PERF.ADN Murat COP-3SG
‘It turned out that it was Murat that gave this necklace to you.’

c. Murat-Ø saŋa bu zänjir-ni bär-gän ikän-Ø.
Murat-NOM 2SG.DAT this necklace-ACC give-PERF.NOML COP-3SG
‘It turned out that Murat gave this necklace to you.’

The sentence in (133a) is a typical ditransitive sentence. The sentence in (133b) is a cleft sentence, in which the focused element is *Murat*, the subject in (133a). The presuppositional clause of a cleft sentence contains a gap (Yakup 2016). The sentence in (133c) is an in-situ focus sentence, which does not contain a gap. The in-situ focus sentence is headed by the copula *ikän*. I assume that *ikän* functions as the Foc head, just as the copula *da* functions as the Foc head in the in-situ focus construction in Japanese (e.g., Hiraiwa and Ishihara 2012). Further, the copula is followed by an agreement marker that agrees with the subject of the sentence in person and number, as shown in (133c) and (134).

(134) Sän-Ø Güli-gä bu zänjir-ni bär-gän ikän-sän.
2SG-NOM Güli-DAT this necklace-ACC give-PERF.NOML COP-2SG
‘It turned out that you gave this necklace to Güli.’

In (134), the subject is the second-person pronoun, and the copula must be followed by the second-person agreement marker. Likewise, in (133c), the subject is in the third person, and the copula is followed by the third-person agreement marker.

In an in-situ focus sentence, any element can receive focus interpretation. See (135-138) for an illustration.

(135) a. Kim-Ø u kitab-ni oqu-ğan ikän-Ø?
who-NOM that book-ACC read-PERF.NOML COP-3SG
'Who was it that read that book?'

b. Murat-Ø u kitab-ni oqu-ğan ikän-Ø.
Murat-NOM that book-ACC read-PERF.NOML COP-3SG
'It turned out that MURAT read that book.'

(136) a. Murat-Ø qaysi kitab-ni oqu-ğan ikän-Ø?
Murat-NOM which book-ACC read-PERF.NOML COP-3SG
'Which book was it that Murat read?'

b. Murat-Ø u Inglizčä kitab-ni oqu-ğan ikän-Ø.
Murat-NOM that English book-ACC read-PERF.NOML COP-3SG
'It turned out that Murat read THAT ENGLISH BOOK.'

(137) a. Murat-Ø nemä iš qil-ğan ikän-Ø?
Murat-NOM what thing do-PERF.NOML COP-3SG
'What was it that Murat did?'

b. Murat-Ø u Inglizčä kitab-ni oqu-ğan ikän-Ø.
Murat-NOM that English book-ACC read-PERF.NOML COP-3SG
'It turned out that Murat READ THAT ENGLISH BOOK.'

(138) a. Nemä iš bol-ğan ikän-Ø?
what thing AUX-PERF.NOML 3SG-COP
'What happened?'

b. Murat-Ø u Inglizčä kitab-ni oqu-ğan ikän-Ø.
Murat-NOM that English book-ACC read-PERF.NOML COP-3SG
'It turned out that MURAT READ THAT ENGLISH BOOK.'

In the in-situ focus sentences, the subject in (135b), the object in (136b), the verb phrase in (137b), and the IP in (138b) can be focalized.

Moreover, an in-situ focus sentence allows multiple focused elements. See the example (139) below.

(139) Ayxan-Ø bügün qäyär-dä kim-ni kör-gän ikän-Ø?
Ayxan-NOM today where-LOC.POSTP who-ACC see-PERF.NOML COP-3SG
'lit. Whom at where was it that Ayxan saw today?'

The sentence in (139) contains two focused elements, *qäyär-dä* 'where-LOC.POSTP' and *kim-ni* 'who-ACC,' both of which remain in situ.

Note that in-situ focus sentences can appear in embedded clauses, as shown in (140-142).

(140) Ayxan-Ø [meniŋ bügün qäyär-dä kim-ni kör-gän
Ayxan-NOM 1SG.GEN today where-LOC.POSTP who-ACC see-PERF.NOML
ikän lik]-**im**-ni bil-idu-Ø.
COP COMP-1SG.POSS-ACC know-NPST-3SG
'lit. Ayxan knows it was that I saw whom at where today.'

(141) Män-Ø [seniŋ Güli-gä bu zänjir-ni bär-gän
1SG-NOM 2SG.GEN Güli-DAT this necklace-ACC give-PERF.NOML
ikän lik]-**iŋ**-ni bil-i-män.
COP COMP-2SG.POSS-ACC know-NPST-1SG
'I know it was that you gave this necklace to Güli.'

(142) Ayxan-niŋ [ular-niŋ nemišqa käl-gän ikän lik]-**i**-
Ayxan-GEN 3PL-GEN why come-PERF.NOML COP COMP-3PL.POSS-
ni bil-gü-si bar.
ACC know-DES.NOML-3SG.POSS have
'lit. Ayxan wants to know it was that they came why.'
(adapted from Yakup 2013: 19)

In the embedded in-situ focus sentences in (140-142), the subjects are first-, second-, and third-person pronouns, respectively. Correspondingly, the possessive agreement markers following the embedded clauses must be the first-, second-, and third-person agreement markers, respectively. Further, the embedded in-situ focus sentence in (142) contains one focused element, and that in (140) contains two.[15]

Keeping the in-situ focus construction in mind, let us consider the reduced question in (143).

[15] According to the previous literature (e.g., Yakup 2016; Çetinkaya 2023), Uyghur employs multiple devices to indicate focused information, such as syntactic and prosodic devices. For example, the cleft construction is a syntactic device to mark focused elements. In addition, Uyghur uses the prosodic device to express focus with the focused elements remaining in situ. Moreover, Uyghur allows multiple focused elements in one sentence (Çetinkaya 2023).

(143) a. Murat-Ø mälum jay-din mälum kiši-gä bir sowǧat
Murat-NOM some place-ABL some person-DAT one present
äwät-ti-Ø,
send-PST-3SG
'Murat sent a present to someone from some place,'

b.? män-Ø [qäyär-din kim-gä ikän lik]-i-gä qiziq-ip
1SG-NOM where-ABL who-DAT COP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'lit. I wonder to whom from where.'

c. män-Ø [u-niŋ qäyär-din kim-gä sowǧat äwät-kän
1SG-NOM 3SG-GEN where-ABL who-DAT present send-PERF.NOML
ikän lik]-i-gä qiziq-ip qal-di-m.
COP COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'lit. I wonder it was that he sent a present to whom from where.'

The sentence in (143a) is the antecedent of the reduced question in (143b) and the full-fledged in-situ focus sentence in (143c). The reduced question contains two case-marked remnant phrases, followed by the copula *ikän* and the COMP. Turning to the in-situ focus sentence, I assume that the copula functions as the Foc head, just as the copula *da* functions as the Foc head in the in-situ focus construction in Japanese (e.g., Hiraiwa and Ishihara 2012), as illustrated in (144).

(144) män-Ø [$_{ForceP}$ [$_{FocP}$ [$_{FinP}$ u-niŋ qäyär-din kim-gä sowğat
1SG-NOM 3SG-GEN where-ABL who-DAT present
äwät-kän] ikän$_{Foc}$] lik$_{Force}$]-i-gä qiziq-ip qal-di-m.
send-PERF.NOML COP COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'lit. I wonder it was that he sent a present to whom from where.'

I follow the cartographic approach, where the CP projection is split into different layers (e.g., Rizzi 1997; 2001; Rizzi and Bocci 2017), as shown in (145).

(145) Force (Top*) Int (Top*) Foc (Top*) Fin IP
(cited from Rizzi 2001: 289)

In (144), I assume that the in-situ focus clause is headed by *ikän*, which is followed by the Force head *lik*.[16]

[16] As shown in the cartographic structure in (145), the highest projection in the complementizer system is ForceP, which specifies clause types such as interrogative, declarative clauses, etc. Further, some linguists propose to distinguish the cartographic structure of main clauses from that of embedded clauses (Speas and Tenny 2003; Coniglio and Zegrean 2012; Haegeman 2012; De Clercq 2017). As discussed in Ceong and Saxon 2013, ForceP is a main clause phenomenon, i.e., it only exists in main clauses. In embedded clauses, the highest projection is TypeP, selecting either declarative or interrogative clauses. When interrogative clauses are selected, TypeP can alternate with InP, which hosts [Q,wh] features (Soare 2007; Mišmaš 2015). A simplified cartographic structure of embedded clauses is presented in (i).

(i) IP Fin Foc Type/Int
(based on Ceong and Saxon 2013 and Rizzi 2001)

Based on (i), *lik* in the in-situ focus sentences could be the head of TypeP or IntP. In this chapter, the label of *lik* does not affect the analysis. For ease of exposition, I label it the head of ForceP.

Now, let us see the possible derivational process of the reduced question in (143b), as illustrated in (146).

(146) a. män-Ø [$_{ForceP}$ [$_{FocP}$ [$_{FinP}$ u-niŋ qäyär-din kim-gä sowğat
1SG-NOM 3SG-GEN where-ABL who-DAT present
äwät-kän] ikän$_{Foc}$] lik$_{Force}$]-i-gä qiziq-ip qal-di-m.
send-PERF.NOML COP COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'lit. I wonder it was that he sent a present to whom from where.'

b.* män-Ø [$_{ForceP}$ [$_{FocP}$ qäyär-din$_i$ kim-gä$_j$ [$_{Foc'}$ [$_{FinP}$ u-niŋ t_i t_j
1SG-NOM where-ABL who-DAT 3SG-GEN
sowğat äwät-kän] ikän$_{Foc}$]] lik$_{Force}$]-i-gä qiziq-ip
present send-PERF.NOML COP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'lit. I wonder it was that to whom from where he sent a present.'

c. män-Ø [$_{ForceP}$ [$_{FocP}$ qäyär-din$_i$ kim-gä$_j$ [$_{Foc'}$ [$_{FinP}$ u-niŋ t_i t_j
1SG-NOM where-ABL who-DAT 3SG-GEN
sowğat äwät-kän] ikän$_{Foc}$]] lik$_{Force}$]-i-gä qiziq-ip
present send-PERF.NOML COP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m
AUX-PST-1SG

The *wh*-phrases in (146a) undergo focus movement to the specifier position of FocP, as shown in (146b). When the remaining part of the in-situ focus sentence is elided, indicated with grey

shading in (146c), the reduced question in (143b) is derived. A major problem exists in this analysis. That is, (146b) with fronted *wh*-phrases is not acceptable. The unacceptability of (146b) indicates that reduced questions with multiple remnants in Uyghur could not be analyzed in terms of a focus movement analysis.

4.4.3.4 An in-situ analysis

In the previous sections, I have argued against the pseudo-sluicing analysis, the reduced cleft analysis, and the focus movement analysis of reduced embedded questions with multiple remnants in Uyghur. In this section, I argue that RQMW in Uyghur can be analyzed in terms of an in-situ analysis (e.g., Kimura 2010; Kimura and Takahashi 2011; Abe 2015; Sato 2016; Palaz 2018).

An in-situ analysis has been advanced to account for reduced embedded questions in some languages such as Japanese and Turkish (e.g., Kimura 2010; Kimura and Takahashi 2011; Abe 2015; Sato 2016; Palaz 2018). Now let us consider the in-situ analysis of reduced questions in Japanese.

(147) Japanese

a. Ken-wa hitori-no onnanoko-ni-sika awanakatta sooda.
Ken-TOP one-GEN girl-DAT-SIKA met.not I-heard
'I heard Ken did not meet anyone but one girl.'

b. [Dare-ni-sika ka] osiete-kudasai.
who-DAT-SIKA Q tell-please

'lit. Please tell me anyone but who.'

(cited from Kimura and Takahashi 2011: 145)

c. [$_{CP}$ [$_{TP}$ [$_{CP}$ Ken-ga dare-ni-sika awanakatta no] (da) ka]

Ken-NOM who-DAT-SIKA met.not that COP Q

osiete-kudasai.

tell-please

'lit. Please tell me it was that Ken did not meet anyone but who.'

d. [$_{CP}$ [$_{TP}$ [$_{CP}$ Ken-ga dare-ni-sika awanakatta no] (da) ka]

Ken-NOM who-DAT-SIKA met.not that COP Q

osiete-kudasai

tell-please

(cited from Kimura and Takahashi 2011: 148)

The sentence in (147a) antecedes the reduced question in (147b) and the full-fledged embedded in-situ focus sentence in (147c) (see Hiraiwa and Ishihara 2002; 2012 for discussions on the in-situ focus construction in Japanese). An in-situ analysis involves nonconstituent deletion (van Craenenbroeck and den Dikken 2006). As shown in (147d), nonconstituent deletion is applied to all the elements in the CP headed by *no* except the *wh*-remnant. The resulting structure is identical to the reduced question in (147b). Since this analysis does not involve movement, it is called an in-situ analysis.

Now let us examine whether the in-situ analysis is a viable analysis explaining RQMW in Uyghur. Consider the example below:

(148) a. Murat-Ø mälum jay-din mälum kiši-gä bir sowǧat
Murat-NOM some place-ABL some person-DAT one present
äwät-ti-Ø,
send-PST-3SG
'Murat sent a present to someone from some place,'

b.? män-Ø [qäyär-din kim-gä ikän lik]-i-gä qiziq-ip
1SG-NOM where-ABL who-DAT COP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'lit. I wonder to whom from where.'

c. män-Ø [$_{ForceP}$[$_{FocP}$[$_{FinP}$ u-niŋ qäyär-din kim-gä sowǧat äwät-
1SG-NOM 3SG-GEN where-ABL who-DAT present send-
kän] ikän$_{Foc}$] lik$_{Force}$]-i-gä qiziq-ip qal-di-m.
PERF.NOML COP COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'lit. I wonder it was that he sent a present to whom from where.'

d. män-Ø [$_{ForceP}$[$_{FocP}$[$_{FinP}$ u-niŋ qäyär-din kim-gä sowǧat äwät-
1SG-NOM 3SG-GEN where-ABL who-DAT present send-
kän] ikän$_{Foc}$] lik$_{Force}$]-i-gä qiziq-ip qal-di-m
PERF.NOML COP COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG

The sentence in (148a) is the antecedent of the reduced question in (148b) and the full-fledged in-situ focus sentence in (148c). The reduced question contains two case-marked remnants, followed by the copula *ikän* and the COMP. Now let us apply nonconstituent deletion to (148c), indicated with grey shading in (148d); we obtain the reduced question in (148b). Note that the

deletion does not affect the copula since it functions as the Foc head. One of the advantages of the in-situ analysis is that it explains the presence of the copula in reduced questions with multiple remnants. As discussed in section 4.4.1, RQMW in Uyghur are more acceptable when the copula appears. Moreover, this analysis straightforwardly accounts for the case-matching effect observed in RQMW since the *wh*-phrases in the in-situ focus sentences are case-marked.

Let us look at another example.

(149) a. Aygül-Ø bir čağ-da mälum šähär-din ayril-di-Ø,
Aygül-NOM one time-TEM.POSTP some city-ABL leave-PST-3SG
'Aygül left from some city at a certain time,'

b.? meniŋ [qaysi waqit-ta qaysi šähär-din ikän lik]-i-
1SG.GEN which time-TEM.POSTP which city-ABL COP COMP-3SG.POSS-
ni bil-gü-m bar.
ACC know-DES.NOML-1SG have
'I want to know from which city at what time.'

c. meniŋ [$_{\text{ForceP}}$ [$_{\text{FocP}}$ [$_{\text{FinP}}$ u-niŋ qaysi waqit-ta qaysi
1SG.GEN 3SG-GEN which time-TEM.POSTP which
šähär-din ayril-ğan] ikän$_{\text{Foc}}$] lik$_{\text{Force}}$]-i-ni bil-gü-
city-ABL leave-PERF.NOML COP COMP-3SG.POSS-ACC know-DES.NOML-
m bar.
1SG have
'lit. I want to know it was that she left from which city at what time.'

d. meniŋ [$_{ForceP}$ [$_{FocP}$ [$_{FinP}$ u-niŋ qaysi waqit-ta qaysi
1SG.GEN 3SG-GEN which time-TEM.POSTP which
šähär-din ayril-ğan] ikän$_{Foc}$] lik$_{Force}$]-i-ni bil-gü-
city-ABL leave-PERF.NOML COP COMP-3SG.POSS-ACC know-DES.NOML-
m bar
1SG have

The sentence in (149a) functions as the antecedent of the reduced question in (149b) and the full-fledged in-situ focus sentence in (149c). When applying nonconstituent deletion to (149c), as shown in (149d), we get the reduced question in (149b) with the remnants accompanied by the locative-temporal postposition and the ablative marker.

The in-situ analysis can explain the observation that RQMW in Uyghur are not sensitive to island effects. See the example below.

(150) a. Tursun-Ø [bir oğul bala-Ø bir qiz-ğa bir närsä sowğa
Tursun-NOM one male child-NOM one girl-DAT one thing present
qil-ğačqa] intayin xapa bol-di-Ø,
AUX-reason.AUX very angry COP-PST-3SG
'Tursun was very angry because some boy gave a thing to some girl,'

b.? män-Ø [qaysi oğul bala-Ø qaysi qiz-ğa ikän lik]-
1SG-NOM which male child-NOM which girl-DAT COP COMP-
i-gä qiziq-ip qal-di-m.
3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'I wonder which boy to which girl.'

c. män-Ø [ForceP [FocP [FinP Tursun-niŋ [ForceP qaysi oğul bala-Ø
1SG-NOM Tursun-GEN which male child-NOM
qaysi qiz-ğa bir närsä sowğa qil-ğačqa] intayin xapa
which girl-DAT one thing present AUX-reason.AUX very angry
bol-ğan] ikänFoc] likForce]-i-gä qiziq-ip qal-di-m.
COP-PERF.NOML COP COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG
'lit. I wonder it was that Tursun was very angry because which boy gave a thing to which girl.'

d. män-Ø [ForceP [FocP [FinP Tursun-niŋ [ForceP qaysi oğul bala-Ø
1SG-NOM Tursun-GEN which male child-NOM
qaysi qiz-ğa bir närsä sowğa qil-ğačqa] intayin xapa
which girl-DAT one thing present AUX-reason.AUX very angry
bol-ğan] ikänFoc] likForce]-i-gä qiziq-ip qal-di-m
COP-PERF.NOML COP COMP-3SG.POSS-DAT excite-ADVL AUX-PST-1SG

The sentence in (150a) antecedes the reduced question in (150b) and the full-fledged in-situ focus sentence in (150c). The correlates of the two *wh*-phrases are inside the adjunct island in (150a). Nevertheless, the reduced question is acceptable, indicating that reduced questions are insensitive to island effects. This observation can be captured by the in-situ analysis since the in-situ focus sentence in (150c) containing two in-situ *wh*-phrases is not sensitive to island effects (e.g., Sato 2016). Now let us apply nonconstituent deletion to (150c), as shown in (150d); we obtain the reduced question in (150b).

Further, the in-situ analysis can capture the observation that RQMW in Uyghur do not adhere to the clause-mate condition (e.g., Sato 2016). Consider (151):

(151) a. Güli-Ø biraw-ğa [Murat-niŋ bir sinip-ta Aygül
Güli-NOM someone-DAT Murat-GEN one classroom-LOC.POSTP Aygül
bilän paranglaš-qan-liq]-i-ni eyt-ip bär-di-Ø,
POSTP chat-PERF.NOML-COMP-3SG.POSS-ACC say-ADVL AUX-PST-3SG
'Güli told someone that Murat chatted with Aygül in a classroom,'

b.? män-Ø [kim-gä qaysi sinip-ta ikän lik]-i-gä
1SG-NOM who-DAT which classroom-LOC.POSTP COP COMP-3SG.POSS-DAT
qiziq-ip qal-di-m.
excite-ADVL AUX-PST-1SG
'lit. I wonder whom in which classroom.'

c. män-Ø [$_{\text{ForceP}}$ [$_{\text{FocP}}$ [$_{\text{FinP}}$ Güli-niŋ kim-gä [$_{\text{ForceP}}$ Murat-niŋ qaysi
1SG-NOM Güli-GEN who-DAT Murat-GEN which
sinip-ta Aygül bilän paranglaš-qan-liq]-i-ni
classroom-LOC.POSTP Aygül POSTP chat-PERF.NOML-COMP-3SG.POSS-ACC
eyt-ip bär-gän] ikän$_{\text{Foc}}$] lik$_{\text{Force}}$]-i-gä qiziq-ip
say-ADVL AUX-PERF.NOML COP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m.
AUX-PST-1SG
'lit. I wonder it was that Güli told whom that Murat chatted with Aygül in
which classroom.'

d. män-Ø [$_{ForceP}$ [$_{FocP}$ [$_{FinP}$ Güli-niŋ kim-gä [$_{ForceP}$ Murat-niŋ qaysi
1SG-NOM Güli-GEN who-DAT Murat-GEN which
sinip-ta Aygül bilän paranglaš-qan-liq]-i-ni
classroom-LOC.POSTP Aygül POSTP chat-PERF.NOML-COMP-3SG.POSS-ACC
eyt-ip bär-gän] ikän$_{Foc}$] lik$_{Force}$]-i-gä qiziq-ip
say-ADVL AUX-PERF.NOML COP COMP-3SG.POSS-DAT excite-ADVL
qal-di-m
AUX-PST-1SG

The sentence in (151a) serves as the antecedent for the reduced question in (151b) and the full-fledged in-situ focus sentence in (151c). The *wh*-phrases come from different clauses. That is, *kim-gä* 'who-DAT' is from the matrix clause, and *qaysi sinip-ta* 'one classroom-LOC.POSTP' is from the embedded clause, as shown in (151c). When nonconstituent deletion is applied to (151c), the reduced question in (151b) is derived, and its acceptability is accounted for.

Up to this point, we have considered cases of truncated clauses with *wh*-remnants. Now let us look at cases with non-*wh*-remnants, as exemplified in (152).

(152) a. Ayxan-Ø [Aygül-niŋ tünügün Ürümči-dä Inglizčä
Ayxan-NOM Aygül-GEN yesterday Urumqi-LOC.POSTP English
emtihan-ğa qatnaš-qan-liq]-i-ni aŋla-p-tu-Ø,
exam-DAT attend-PERF.NOML-COMP-3SG.POSS-ACC hear-ADVL-PST-3SG
'Ayxan heard that Aygül attended an English exam in Urumqi yesterday,'

b.? lekin män-Ø [ülüškün Qäšqär-dä ikän
but 1SG-NOM the.day.before.yesterday Kashgar-LOC.POSTP COP
lik]-i-ni aŋla-di-m.
COMP-3SG.POSS-ACC hear-PST-1SG
'lit. but I heard that in Kashgar the day before yesterday.'

c. lekin män-Ø [$_{ForceP}$ [$_{FocP}$ [$_{FinP}$ u-niŋ ülüškün
but 1SG-NOM 3SG-GEN the.day.before.yesterday
Qäšqär-dä Inglizčä emtihan-ğa qatnaš-qan] ikän$_{Foc}$]
Kashgar-LOC.POSTP English exam-DAT attend-PERF.NOML COP
lik$_{Force}$]-i-ni aŋla-di-m.
COMP-3SG.POSS-ACC hear-PST-1SG
'but I heard that it was that she attended the English exam in Kashgar the day before yesterday.'

d. lekin män-Ø [$_{ForceP}$ [$_{FocP}$ [$_{FinP}$ u-niŋ ülüškün
but 1SG-NOM 3SG-GEN the.day.before.yesterday
Qäšqär-dä Inglizčä emtihan-ğa qatnaš-qan] ikän$_{Foc}$]
Kashgar-LOC.POSTP English exam-DAT attend-PERF.NOML COP
lik$_{Force}$]-i-ni aŋla-di-m
COMP-3SG.POSS-ACC hear-PST-1SG

The sentence in (152a) functions to antecede the truncated clause in (152b) with two non-*wh*-remnants, which is acceptable. The full-fledged counterpart of (152b) is shown in (152c). When nonconstituent deletion is applied to (152c), indicated with grey shading in (152d), the truncated clause can be derived.

Next, let us examine whether heterogenous remnants, i.e., the combination of a *wh*-remnant and a non-*wh*-remnant, are allowed in RQMW in Uyghur. Consider the example below:

(153) a. Jang muällim-Ø [qaysi oğul bala-niŋ Šaŋxäy-dä sayahät
Zhang teacher-NOM which male child-GEN Shanghai-LOC.POSTP travel
qil-ğan-liq]-i-ni bil-idu-Ø,
AUX-PERF.NOML-COMP-3SG.POSS-ACC know-NPST-3SG
'Mr. Zhang knows which boy traveled in Shanghai,'

b.? Li muällim-Ø [qaysi qiz-niŋ Beyjiŋ-dä ikän lik]-
Li teacher-NOM which girl-GEN Beijing-LOC.POSTP COP COMP-
i-ni bil-idu-Ø.
3SG.POSS-ACC know-NPST-3SG
'lit. Mr. Li knows which girl in Beijing.'

c. Li muällim-Ø [$_{\text{ForceP}}$ [$_{\text{FocP}}$ [$_{\text{FinP}}$ qaysi qiz-niŋ Beyjiŋ-dä
Li teacher-NOM which girl-GEN Beijing-LOC.POSTP
sayahät qil-ğan] ikän$_{\text{Foc}}$] lik$_{\text{Force}}$]-i-ni bil-idu-Ø.
travel AUX-PERF.NOML COP COMP-3SG.POSS-ACC know-NPST-3SG
'lit. Mr. Li knows it was that which girl traveled in Beijing.'

d. Li muällim-Ø [$_{\text{ForceP}}$ [$_{\text{FocP}}$ [$_{\text{FinP}}$ qaysi qiz-niŋ Beyjiŋ-dä
Li teacher-NOM which girl-GEN Beijing-LOC.POSTP
sayahät qil-ğan] ikän$_{\text{Foc}}$] lik$_{\text{Force}}$]-i-ni bil-idu-Ø
travel AUX-PERF.NOML COP COMP-3SG.POSS-ACC know-NPST-3SG

The sentence in (153a) antecedes the reduced question in (153b) and the full-fledged in-situ

focus sentence in (153c). The reduced question with heterogenous remnants can be derived via nonconstituent deletion, as shown in (153d).

Thus far, we have considered cases of reduced questions in which the underlying subjects of the embedded questions are in the third person. Now let us consider cases where the underlying subjects of the embedded questions are first-person or second-person pronouns. See the example in (154).

(154) a. Män-Ø tünügün mälum sinip-ta bir qiz bilän
1SG-NOM yesterday some classroom-LOC.POSTP one girl POSTP
paraŋlaš-ti-m,
chat-PST-1SG
'I chatted with a girl in a classroom yesterday,'

b.? meniŋ aka-lar-im-niŋ [qaysi sinip-ta
1SG.GEN elder.brother-PL-1SG.POSS-GEN which classroom-LOC.POSTP
kim bilän ikän lik]-**im/i**-ni bil-gü-si bar.
who POSTP COP COMP-1SG/3SG.POSS-ACC know-DES.NOML-3PL have
'my elder brothers want to know with whom in which classroom.'

c. meniŋ aka-lar-im-niŋ [meniŋ tünügün qaysi
1SG.GEN elder.brother-PL-1SG.POSS-GEN 1SG.GEN yesterday which
sinip-ta kim bilän paraŋlaš-qan ikän lik]-**im**-ni
classroom-LOC.POSTP who POSTP chat-PERF.NOML COP COMP-1SG.POSS-ACC
bil-gü-si bar.
know-DES.NOML-3PL have

‘lit. my elder brothers want to know it was that I chatted with whom in which classroom yesterday.’

d.* meniŋ aka-lar-im-niŋ [meniŋ tünügün qaysi
1SG.GEN elder.brother-PL-1SG.POSS-GEN 1SG.GEN yesterday which
sinip-ta kim bilän paraŋlaš-qan ikän lik]-**i**-ni
classroom-LOC.POSTP who POSTP chat-PERF.NOML COP COMP-3SG.POSS-ACC
bil-gü-si bar.
know-DES.NOML-3PL have
‘lit. my elder brothers want to know it was that I chatted with whom in which classroom yesterday.’

e. meniŋ aka-lar-im-niŋ [$_{\text{ForceP}}$ [$_{\text{FocP}}$ [$_{\text{FinP}}$ meniŋ
1SG.GEN elder.brother-PL-1SG.POSS-GEN 1SG.GEN
tünügün qaysi sinip-ta kim bilän paraŋlaš-qan]
yesterday which classroom-LOC.POSTP who POSTP chat-PERF.NOML
ikän$_{\text{Foc}}$] lik$_{\text{Force}}$]-**im**-ni bil-gü-si bar
COP COMP-1SG.POSS-ACC know-DES.NOML-3PL have

The sentence in (154a) is the antecedent of the reduced question in (154b) and the full-fledged in-situ sentences in (154c-d). In the reduced question, the possessive agreement marker following the reduced question can be the first-person *im* or the third-person *i*. Turning to the full-fledged sentence, the possessive marker can only be the first-person *im*. To the extent that the first-person possessive marker on the reduced question is allowed, the reduced question can be derived from (154c) when nonconstituent deletion is applied to (154c), as indicated in (154e).

Let us look at another example where the underlying subject of the embedded question is a second-person pronoun.

(155) a. Sän-Ø tünügün mälum sinip-ta bir qiz bilän
2SG-NOM yesterday some classroom-LOC.POSTP one girl POSTP
paraŋlaš-ti-ŋ,
chat-PST-2SG
'You chatted with a girl in a classroom yesterday,'

b.? meniŋ [qaysi sinip-ta kim bilän ikän lik]-
1SG.GEN which classroom-LOC.POSTP who POSTP COP COMP-
iŋ/i-ni bil-gü-m bar.
2SG/3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know with whom in which classroom.'

c. meniŋ [seniŋ tünügün qaysi sinip-ta kim bilän
1SG.GEN 2SG.GEN yesterday which classroom-LOC.POSTP who POSTP
paraŋlaš-qan ikän lik]-**iŋ**-ni bil-gü-m bar.
chat-PERF.NOML COP COMP-2SG.POSS-ACC know-DES.NOML-1SG have
'lit. I want to know it was that you chatted with whom in which classroom yesterday.'

d.* meniŋ [seniŋ tünügün qaysi sinip-ta kim bilän
1SG.GEN 2SG.GEN yesterday which classroom-LOC.POSTP who POSTP
paraŋlaš-qan ikän lik]-**i**-ni bil-gü-m bar.
chat-PERF.NOML COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have

‘lit. I want to know it was that you chatted with whom in which classroom yesterday.’

e. meniŋ [$_{ForceP}$ [$_{FocP}$ [$_{FinP}$ seniŋ tünügün qaysi sinip-
1SG.GEN 2SG.GEN yesterday which classroom-
ta kim bilän paraŋlaš-qan] ikän$_{Foc}$] lik$_{Force}$]-**iŋ**-ni
LOC.POSTP who POSTP chat-PERF.NOML COP COMP-2SG.POSS-ACC
bil-gü-m bar
know-DES.NOML-1SG have

The sentence in (155a) antecedes the reduced question in (155b) and the full-fledged in-situ sentences in (155c-d). In the reduced question, the second- or third-person possessive marker can appear.[17] In the full-fledged in-situ sentences, only the second-person marker is allowed, as shown by the comparison between (155c) and (155d). When applying nonconstituent deletion to (155c), we can obtain the reduced question with the second-person agreement marker.

Cases of reduced questions like (154-155) reveal the limitations of the in-situ analysis. The presence of the third-person agreement marker cannot be accounted for by the in-situ analysis because the full-fledged counterparts in (154d) and (155d) with the third-person marker are not acceptable. The presence of the third-person marker indicates that the reduced question has a third-person subject. Although the pseudo-sluicing analysis posits the presence of a third-person subject, it is not a viable analysis accounting for RQMW in Uyghur, as discussed in

[17] Regarding the agreement markers in the reduced questions in (154b) and (155b), my informants have different opinions. Half of the speakers I consulted only accept the first-person marker in (154b) and the second-person marker in (155b). The other half think that, in addition to the first-person marker in (154b) and the second-person marker in (155b), the third-person marker is also allowed to appear in the reduced questions.

section 4.4.3.1. Likewise, the reduced cleft analysis is not a viable analysis, as discussed in section 4.4.3.2. Accordingly, I cannot explain the presence of the third-person marker in some cases of RQMW in Uyghur. I will leave them for future studies.

The discussions in this section have shown that the in-situ analysis is a viable analysis accounting for reduced embedded questions with multiple remnants in Uyghur. The in-situ analysis does not posit movement in Uyghur, a *wh*-in-situ language.

4.5 Summary

This chapter has discussed reduced embedded single questions and reduced embedded questions with multiple remnants in Uyghur. A distinct property of reduced single questions is that the remnants cannot be accompanied by case markers. As discussed in section 4.3, reduced single questions can be explained by the pseudo-sluicing analysis or the reduced cleft analysis. The pseudo-sluicing analysis can capture the observation that remnant phrases cannot be followed by case markers because remnants are the complements of the copula and hence are not case-marked. The reduced cleft analysis can also explain that observation since the cleft construction in Uyghur does not allow case-marked pivots.

Interestingly, reduced questions with multiple remnants in Uyghur show a major difference from cases with single remnants. That is, remnants in RQMW must be case-marked. This difference indicates that cases with multiple remnants may have different underlying forms from those with single remnants. According to my study, this is indeed the case. Since the cleft construction in Uyghur allows neither case-marked pivots nor multiple pivots, cases with multiple remnants cannot be derived from cleft sentences. Also, as I have argued in section 4.4, cases with multiple remnants cannot be explicated by the pseudo-sluicing analysis. Taking the

properties of RQMW into account, I have argued that they can be explained by an in-situ analysis. Since the *wh*-phrases in the full-fledged counterparts of the reduced questions are case-marked, it follows that the remnants in the reduced questions are case-marked.

Chapter 5 Reduced embedded questions with multiple *wh*-phrases in Mandarin Chinese

Reduced embedded questions with multiple *wh*-phrases (henceforth, RQMW) in Mandarin Chinese have been studied in the previous literature (Wei 2004; Chiu 2007; Adams and Tomioka 2012; Takahashi and Lin 2012; Park and Li 2013; Li and Wei 2014; 2017; Wang 2018; Wang and Han 2018; Bai, Cortés Rodríguez, and Takahashi 2023; Bai and Takahashi 2023b). Some aspects of the RQMW, however, remain uninvestigated. This chapter aims to detail RQMW in MC and propose a hybrid analysis to account for the observed data. This chapter is comprised of three sections. Section 5.1 provides an overview of RQMW that have been examined in the previous literature. It also includes theoretical analyses to account for the observed data. Since the previous studies focus on cases of RQMW with single-pair interpretation, I will discuss RQMW with pair-list interpretation in section 5.2. I argue that cases with pair-list interpretation can be explained by a single-clausal analysis.[1] Specifically, I follow Abels and Dayal's (2022) movement-and-deletion proposal. Finally, section 5.3 summarizes this chapter.

5.1 Literature review on reduced embedded questions in MC

This section is composed of two parts. Reduced embedded single *wh*-questions are introduced

[1] Some of the content in this chapter comes from Bai and Takahashi (2023b) and Bai, Cortés Rodríguez, and Takahashi (2023). I thank Daiko Takahashi and Álvaro Cortés Rodríguez for allowing me to use the relevant content.

in the first part, laying a foundation for the discussion on reduced questions with multiple remnants. The second part reviews RQMW that have been studied in the previous literature and a multi-clausal analysis explaining the observed properties.

5.1.1 Reduced embedded single *wh*-questions

5.1.1.1 Basic phenomena

Reduced embedded single *wh*-questions are observed and extensively discussed in MC (Chao 1987; Wang 2002; Wei 2004; Adams 2004; Wang and Wu 2006; Chiu 2007; Chiu, Fujii, and Sugawa 2008; Park and Li 2013; 2014; 2016; Li and Wei 2014; 2017; Song 2016; Song and Yoshida 2017; Liu 2019; Zhang and Overfelt 2019; Lee 2020). Let us start our discussion with the example below.

(1) a. Zhangsan kan-dao mouren,
Zhangsan see-ASP someone
'Zhangsan saw somebody,'

b. danshi wo bu zhidao [*(shi) shei].
but I not know SHI who
'but I don't know who.'
(cited from Wei 2004: 165)

The sentence in (1a) antecedes the reduced question in (1b), which contains a bare NP *wh*-

phrase *shei* 'who.' The bare *wh*-phrase must be preceded by *shi*, as discussed in the previous literature (e.g., Wang 2002; Adams 2004; Wei 2004; Wang and Wu 2006; Chiu, Fujii, and Sugawa 2008; Li and Wei 2014; 2017; Song 2016; Sun 2018).

Let us look at another example.

(2) a. Zhangsan mai-le mouwu,
Zhangsan buy-ASP something
'Zhangsan bought something,'

b. danshi wo bu zhidao [*(shi) shenme].
but I not know SHI what
'but I don't know what.'
(cited from Wei 2004: 165)

The reduced question in (2b), which is anteceded by (2a), contains a bare NP *wh*-phrase, *shenme* 'what,' which also must be preceded by *shi*. The status of *shi* in reduced questions in MC has received much debate. While some linguists (Wang 2002; Wang and Wu 2006; Qin and Xu 2019) regard it as a focus marker, others (Adams 2004; Adams and Tomioka 2012; Li and Wei 2017) claim that it is a copula. Both claims are reasonable given that *shi* in MC can function as a focus marker or as a copula (Xu 2003), as illustrated in (3) and (4), respectively.

(3) Shi wo mingtian cheng huoche qu Guangzhou.
FOC I tomorrow ride train go Guangzhou
'It is I who will go to Guangzhou by train tomorrow.'
(Xu 2003: 4)

(4) Ta shi yi-ge xuesheng.
he COP one-CL student
'He is a student.'
(ibid.)

Since the status of *shi* in reduced questions is debated, *shi* will be glossed as SHI, except in cases where a theoretical analysis assumes its specific status.

In addition to bare NP *wh*-phrases, reduced questions in MC allow specific NP *wh*-phrases and complex *wh*-phrases as remnants, as illustrated in (5-6).

(5) a. Lisi bu xihuan yi-shou ge,
Lisi not like one-CL song
'Lisi doesn't like one song,'

b. danshi wo bu zhidao [(shi) na-yi-shou ge].
but I not know SHI which-one-CL song
'but I don't know which song.'
(cited from Adams and Tomioka 2012: 223)

(6) a. Zhangsan mai-le yi-ben shu,
Zhangsan buy-ASP one-CL book
'Zhangsan bought a book,'

b. danshi wo bu zhidao [(shi) shenme shu].
but I not know SHI what book
'but I don't know what book.'
(cited from Wei 2004: 167)

The sentences in (5a) and (6a) serve as the antecedents for the reduced questions in (5b) and (6b), respectively. It is worth mentioning that specific and complex *wh*-remnants can be optionally accompanied by *shi* (Adams 2004; Wei 2004; Adams and Tomioka 2012; Park and Li 2013; Li and Wei 2014; 2017; Song 2016; Sun 2018; Zhang and Overfelt 2019).

Reduced questions in MC also allow prepositional *wh*-phrases as remnants. Consider the example below:

(7) a. Zhangsan ji-le yi-feng xin gei mouren,
Zhangsan send-ASP one-CL letter to someone
'Zhangsan sent a letter to someone,'

b. danshi wo bu zhidao [(shi) gei shei].
but I not know SHI to whom
'but I don't know to whom.'
(cited from Wei 2004: 168)

The reduced question in (7b) contains a prepositional *wh*-remnant, in front of which the occurrence of *shi* is optional (Adams 2004; Wei 2004; Wang and Wu 2006; Park and Li 2013; Song 2016; Zhang and Overfelt 2019; Lee 2020).

Reduced questions in MC permit adjunct *wh*-phrases as remnants, as exemplified in (8-10).

(8) a. Zhangsan zai mou-ge difang chu shi le,
Zhangsan at some-CL place have accident ASP
'Zhangsan had an accident at some place,'

b. danshi wo bu zhidao [(shi) zai nali].
but I not know SHI at where
'but I don't know where.'
(cited from Wei 2004: 168)

(9) a. Zhangsan tingshuo [Lisi zai moushi jiehun-le],
Zhangsan hear Lisi at some.time get.married-ASP
'Zhangsan heard that Lisi got married at some time,'

b. dan wo wangji-le [(shi) zai shenme shihou].
but I forget-ASP SHI at what time
'but I forgot at what time.'
(adapted from Song 2016: 266)

(10) a. Lisi yinwei moushi yao lihun,
Lisi because something want divorce
'Lisi wants to get a divorce because of something,'

b. dan wo bu zhidao [(shi) wei shenme].
but I not know SHI for what
'but I don't know why.'
(cited from Adams and Tomioka 2012: 224)

The remnants in the reduced questions in (8-10) are adjunct *wh*-phrases, which can be optionally accompanied by *shi* (Wei 2004; Adams 2004; Wang and Wu 2006; Park and Li 2013; Song 2016; Zhang and Overfelt 2019; Lee 2020). Note that the adjuncts used in reduced questions in MC have an underlying prepositional structure. For instance, the adjunct *wh*-phrases in (8-10) include the prepositions *zai* 'at' and *wei* 'for.' Thus far, we can see that the

presence of *shi* is obligatory with bare NP *wh*-phrases but optional with other types of *wh*-phrases, such as specific and complex *wh*-phrases, prepositional *wh*-phrases, and adjunct *wh*-phrases.

5.1.1.2 Analyses

This section reviews the theoretical analyses that have been proposed to account for reduced embedded single questions in MC. Let us start with the sluicing analysis (Wang 2002; Wang and Wu 2006; Song 2016; Song and Yoshida 2017). Consider (11):

(11) a. Lisi yujian-le yi-ge ren,
Lisi meet-ASP one-CL person
'Lisi met someone,'

b. keshi wo bu zhidao [Lisi yujian-le shei].
but I not know Lisi meet-ASP who
'but I don't know who Lisi met.'

c. keshi wo bu zhidao [*(shi) shei].
but I not know FOC who
'but I don't know who.'

d. keshi wo bu zhidao [$_{CP}$ shi [$_{FocP}$ shei$_i$ Foc [$_{IP}$ Lisi yujian-le t$_i$]]]
but I not know FOC who Lisi met-ASP
(adapted from Wang and Wu 2006: 376)

The sentence in (11a) antecedes the full-fledged embedded *wh*-question in (11b) and the reduced question in (11c). According to Wang and Wu (2006), the reduced question in (11c) is derived by focus movement of the *wh*-phrase *shei* 'who' into the specifier position of FocP, which is followed by IP deletion, as indicated in (11d). Furthermore, the focus marker *shi* is merged into the structure and hosted by the focus projection after PF deletion takes place.

One crucial ingredient of the PF deletion analysis is the overt focus movement of *wh*-phrases, which is independently allowed in MC (e.g., Hoh and Chiang 1990; Tsai 1994; Wang 2002; Cheung 2008; 2014; Li and Cheung 2015; Song 2016). See (12) for an illustration.

(12) a. (Shi) shenme dongxi$_i$, ni mai-le t$_i$?
FOC what thing you buy-ASP
'What thing was it that you bought?'
(cited from Cheung 2014: 398)

b. (Shi) shenme shihou$_i$, Zhangsan yinggai t$_i$ zou ne?
FOC what time Zhangsan should leave Q
'When is it that Zhangsan should leave?'
(cited from Cheung 2014: 401)

According to the previous literature (e.g., Cheung 2014; Song 2016), the *wh*-phrases in (12) undergo focus movement to the specifier position of FocP. In the *wh*-fronting construction like (12), *shi* is the focus marker and can optionally precede the *wh*-phrases.

The PF deletion approach is supported by the idiomatic reconstruction effects observed in reduced questions (Song and Yoshida 2017). Consider the example in (13), where two speakers, A and B, engage in a conversation:

(13) A: Lisi changchang [$_{VP}$ chi [$_{DP}$ mouren de cu]].
Lisi often eat someone GEN vinegar
'Lisi is often jealous of someone.'

B: Dui, dan wo bu zhidao [(shi) [$_{DP}$ shei de cu]].
yes but I not know FOC who GEN vinegar
'Yes, but I don't know who.'

B': Dui, dan wo bu zhidao [$_{CP}$ (shi) [$_{DP}$ shei de cu]$_i$
yes but I not know FOC who GEN vinegar
[$_{IP}$ Lisi changchang chi t_i]].
Lisi often eat
'Yes, but I don't know who Lisi is often jealous of.'

B'': Dui, dan wo bu zhidao [$_{CP}$ (shi) [$_{DP}$ shei de cu]$_i$
yes but I not know FOC who GEN vinegar
[$_{IP}$ Lisi changchang chi t_i]]
Lisi often eat
(adapt from Song and Yoshida 2017: 484)

The sentence in (13A) antecedes the reduced question in (13B). (13A) contains an idiomatic expression (Cheung 2008), i.e., *chi mouren de cu* 'eat someone's vinegar,' which means *be jealous of someone*. The reduced question in (13B) yields the idiomatic reading, indicating that the remnant *wh*-phrase can be reconstructed into its base position, that is, the object position, as illustrated in (13B'). The *wh*-phrase *shei de cu* 'whose vinegar' is moved from its base position into the CP projection. When IP in (13B') is elided, as shown in (13B''), the reduced

question in (13B) is derived, and its idiomatic reading is explained since its full-fledged counterpart has the idiomatic reading.

Next, let us review the pseudo-sluicing analysis explaining reduced questions in MC (Wei 2004; Wang 2004; Adams and Tomioka 2012; Li and Wei 2014). Consider the example below:

(14) a. Zhangsan kan-dao mouren,
Zhangsan see-ASP someone
'Zhangsan saw somebody,'

b. danshi wo bu zhidao [(shi) shenme ren].
but I not know COP what person
'but I don't know what person.'
(cited from Li and Wei 2014: 296)

c. danshi wo bu zhidao [*pro* (shi) shenme ren]
but I not know he COP what person
'but I don't know what person (he) was'

d. danshi wo bu zhidao [*ta* shi shenme ren].
but I not know he COP what person
'but I don't know what person he was.'

The sentence in (14a) is intended to antecede the reduced question in (14b), where the *wh*-remnant *shenme ren* 'what person' can optionally be preceded by the copula *shi*. In line with the pseudo-sluicing analysis, the reduced question in (14b) is analyzed as (14c), containing a null pronoun, a copula, and a remnant *wh*-phrase. The pseudo-sluicing analysis naturally accounts for the appearance of the copula in reduced questions because a pseudo-sluiced clause

is a copular clause. Moreover, the presence of the null pronoun is independently allowed in MC, a *pro*-drop language (Huang 1984). As predicted by the pseudo-sluicing analysis, the null pronoun in (14c) should be able to alternate with an overt pronoun. This prediction is borne out, as shown in (14d) containing the overt pronoun *ta* 'he.' (14d) is a natural follow-up to the antecedent clause in (14a). In addition, the pseudo-sluicing analysis does not posit *wh*-movement in MC, a *wh*-in-situ language.

According to the previous literature (e.g., Adams 2004; Liu 2019), reduced questions in MC are insensitive to island effects. This observation can be captured by the pseudo-sluicing analysis since a pseudo-sluiced clause, being a copular clause, does not contain an island. See the example below.

(15) a. Lisi jie-le [mouren zuotian zai dian li mai de]
Lisi borrow-ASP someone yesterday at store inside buy RM
mou-yang dongxi,
some-CL thing
'Lisi borrowed something that someone bought at the store yesterday,'

b. danshi ta bu gaosu women [shi shei].
but he not tell us COP who
'but he wouldn't tell us who.'
(cited from Adams 2004: 9)

c. danshi ta bu gaosu women [*pro* shi shei]
but he not tell us he COP who
'but he wouldn't tell us who (he) was'

d. danshi ta bu gaosu women [*ta* shi shei].
but he not tell us he COP who
'but he wouldn't tell us who he was.'

The sentence in (15a), which contains a relative clause, antecedes the reduced question in (15b). The correlate of the *wh*-remnant, namely, *mouren* 'someone,' is inside the relative clause, which constitutes islands for movement in MC (e.g., Li 2002; Hsu 2008). The reduced question in (15b) is acceptable, indicating that reduced questions in MC are not sensitive to island effects. Now let us look at the pseudo-sluicing analysis of the reduced question, as shown in (15c). (15c) contains the empty pronoun, the copula, and the *wh*-remnant. Further, (15c) can be expressed alternatively with an overt pronoun in place of the empty pronoun, as in (15d). Since the pseudo-sluiced clause does not contain an island, it follows that the island effect is not observed in the reduced question.

Before leaving this section, it is worth mentioning that the reduced cleft analysis and the reduced pseudo-cleft analysis of reduced questions in MC have been rejected by some linguists because there are discrepancies between reduced questions and the cleft and pseudo-cleft constructions in MC (e.g., Adams 2004; Wei 2011; Adams and Tomioka 2012; Song 2016). Let us first review arguments against the reduced cleft analysis. As discussed in the previous section, the presence of *shi* is obligatory in front of bare NP *wh*-phrases, i.e., *shei* 'who' and *shenme* 'what,' but optional in front of the other *wh*-phrases in reduced questions in MC. If reduced questions were derived from cleft sentences, the usage of *shi* in cleft sentences should pattern that in reduced questions. However, the focus marker *shi* is always obligatory in the cleft construction in MC, as illustrated in (16).

(16) a. *(Shi) [Lisi]$_{Focus}$ zuotian zai shudian li mai-le yi-ben xiaoshuo
FOC Lisi yesterday at bookstore inside buy-ASP one-CL novel
(de).
DE
'It was Lisi who bought a novel in the bookstore yesterday.'

b. Lisi *(shi) [zuotian]$_{Focus}$ zai shudian li mai-le yi-ben xiaoshuo
Lisi FOC yesterday at bookstore inside buy-ASP one-CL novel
(de).
DE
'It was yesterday that Lisi bought a novel in the bookstore.'
(adapted from Adams and Tomioka 2012: 243)

(16a-b) are typical cleft sentences in MC (e.g., Paul and Whitman 2008; Adams and Tomioka 2012). The focused elements in (16a-b) are the nominal subject and an adverbial phrase, respectively, both of which need to be accompanied by the focus marker *shi*. Thus, we can see that the usage of *shi* in reduced questions is not compatible with that in cleft sentences.

The same problem exists in the reduced pseudo-cleft analysis. That is, the focus marker *shi* is always obligatory in the pseudo-cleft construction in MC, which is incompatible with that in reduced questions in the language. See the pseudo-cleft sentences in (17).

(17) a. [Zhangsan zai Beijing xuexi de] *(shi) zhongwen.
Zhangsan in Beijing study RM FOC Chinese
'What Zhangsan studied in Beijing was Chinese.'
(cited from Song 2016: 267)

b. Yuehan xiang zhidao [[ta yinggai mai de] *(shi) na yi-ben xiaoshuo].
John want know he should buy RM FOC which one-CL novel
'John wonders which novel the thing he should buy is.'
(adapted from Adams and Tomioka 2012: 245)

(17a-b) are typical pseudo-cleft sentences in MC. The pivots in (17a-b) are nominal phrases, which must be preceded by *shi*.

In addition, some phrases, such as prepositional argument phrases, cannot be pivots in the pseudo-cleft construction in MC, as illustrated in (18).

(18) * [Aqiu song yi-zhi zuanshi jiezhi de ren] shi gei Amei.
Aqiu give one-CL diamond ring RM person FOC to Amei
'The person that Aqiu gave a diamond ring to was Amei.'
(cited from Adams and Tomioka 2012: 245)

A prepositional argument phrase cannot be the pivot in a pseudo-cleft construction but can be the remnant in a reduced question. See (19) for an illustration.

(19) a. Zhangsan ji-le yi-feng xin gei mouren,
Zhangsan send-ASP one-CL letter to someone
'Zhangsan sent a letter to someone,'

b. danshi wo bu zhidao [(shi) gei shei].
but I not know SHI to whom
'but I don't know to whom.'
(cited from Wei 2004: 168)

c.* danshi wo bu zhidao [[Zhangsan ji-le yi-feng xin de] shi
but I not know Zhangsan send-ASP one-CL letter RM FOC
gei shei].
to whom
'but I don't know who the person Zhangsan sent a letter to was.'

The sentence in (19a) is the antecedent of the reduced question in (19b) and the embedded pseudo-cleft sentence in (19c). The reduced question is acceptable with the prepositional argument *wh*-remnant. However, its pseudo-cleft counterpart in (19c) is not acceptable. Moreover, *shi* is obligatory in (19c) but optional in (19b).

In short, the PF deletion analysis and the pseudo-sluicing analysis are viable analyses to account for reduced questions in MC. Additionally, some linguists suggest that reduced questions in MC can be explained by a hybrid analysis of the two analyses (Zhang and Overfelt 2019; Lee 2020; Liu, Hyams, and Mateu 2022).

5.1.2 Reduced embedded questions with multiple *wh*-phrases

This subsection aims to review reduced embedded questions with multiple remnants that have been investigated in the previous literature. This subsection consists of three parts. The first

part introduces reduced questions with multiple remnants in MC. The second part illustrates the observed properties. The last part presents a multi-clausal analysis accounting for the properties.

5.1.2.1 Basic phenomena

Reduced embedded questions with multiple *wh*-phrases have been discussed in MC (Chiu 2007; Adams and Tomioka 2012; Takahashi and Lin 2012; Park and Li 2013; Li and Wei 2017; Wang 2018; Wang and Han 2018). Let us start our discussion with NP *wh*-remnants. Chiu (2007) states that cases of reduced questions with two NP *wh*-phrases are not acceptable, as illustrated in (20).

(20) a. Mouren da-le women ban de ren,
someone hit-ASP our class GEN person
'Someone hit a person of our class,'

b.* dan wo bu zhidao [shi shei shei].
but I not know SHI who who
'lit. but I don't know who whom.'
(cited from Chiu 2007: 23)

As discussed in Adams and Tomioka (2012) and Wang and Han (2018), cases like (20) are indeed unacceptable. The unacceptability may be caused by the presence of two identical *wh*-remnants whose correlates in (20a) cannot be identified. The *wh*-remnants may not, therefore, be able to be properly interpreted. Similar cases of reduced questions in English are also judged

unacceptable (e.g., Bolinger 1978; Richards 2010), as shown in (21).

(21) * I know that in each instance one of the girls chose one of the boys. But which which?
(cited from Bolinger 1978: 109)

Identical *wh*-remnants are claimed to cause a homonymic conflict, which renders the relevant reduced questions unacceptable (Bolinger 1978).

Adams and Tomioka (2012), on the other hand, observe that reduced questions with two different NP *wh*-phrases are allowed, as exemplified in (22).

(22) a. Mouren tou-le tade yi-yang dongxi,
someone steal-ASP his one-CL thing
'Someone stole one of his belongings,'

b. wo xiang zhidao [*(shi) shei *(shi) shenme].
I want know SHI who SHI what
'lit. and I wonder who what.'
(cited from Adams and Tomioka 2012: 237)

In (22), the two NP *wh*-phrases are *shei* 'who' and *shenme* 'what.' Park and Li (2013) and Wang and Han (2018) agree with Adams and Tomioka (2012) that cases like (22) are acceptable. Wang (2018), on the other hand, rejects such cases. See the example (23) below provided by Wang (2018).

(23) a. Lisi zhi jide [you ren mai-le dongxi],
Lisi only remember have person buy-ASP thing
'Lisi only remembered someone bought something,'

b.* dan ta wang-le [shi shenme (shi) shei].
dan he forget-ASP SHI what SHI who
'lit. but he forgot what who.'
(cited from Wang 2018: 1)

Although I agree with the judgment provided for (23b), I suspect that rather than by the combination of two bare NP *wh*-phrases, the reported unacceptability is caused by the following two factors. First, the order of the *wh*-arguments in (23b) should be reversed to conform to that of their respective correlates in (23a). Moreover, the bare NP *wh*-phrase, *shei* 'who,' must be preceded by *shi*, based on discussions in the previous literature (e.g., Adams and Tomioka 2012; Park and Li 2013; Wang and Han 2018). The obligatory presence of *shi* in front of each bare NP *wh*-phrase is not surprising since *shi* is also obligatory in front of bare NP *wh*-phrases in reduced embedded single *wh*-questions in MC.

Reduced questions with two specific NP *wh*-phrases are allowed, as discussed in Wang and Han (2018). Consider the example (24):

(24) a. Mouren mai-le yi-yang dongxi,
someone buy-ASP one-CL thing
'Someone bought a thing,'

b. danshi wo bu zhidao [na-ge ren na-yang dongxi].
but I not know which-CL person which-CL thing

'lit. but I don't know which person which thing.'

(cited from Wang and Han 2018: 611)

The sentence in (24a) is the antecedent of the reduced question in (24b) containing two specific NP *wh*-remnants. Note that neither of the specific NP *wh*-remnants is preceded by *shi*.[2]

Wang and Han (2018) discuss reduced questions with a specific NP *wh*-phrase and an adjunct *wh*-phrase, as illustrated in (25).

(25) a. Mouren zai mou-ge difang mai-le yi-jian chenyi,
someone at some-CL place buy-ASP one-CL shirt
'Someone bought a shirt at a certain place,'

b. danshi wo bu zhidao [na-ge ren zai nali].
but I not know which-CL person at where
'lit. but I don't know which person where.'
(cited from Wang and Han 2018: 611)

It is worth mentioning that neither of the *wh*-remnants in (25) is preceded by *shi*.

Wang and Han (2018) and Wang (2018) mention that reduced questions in MC allow two adjunct *wh*-phrases, as in (26).

[2] Note that in reduced questions like (24b), (25b), (26b), (27b), and (28b), each of the remnant *wh*-phrases can be optionally preceded by *shi*. As discussed in the previous literature (e.g., Adams and Tomioka 2012; Wang and Han 2018), *shi* is generally optional with specific NP *wh*-phrases, complex *wh*-phrases, prepositional argument *wh*-phrases, and adjunct *wh*-phrases in reduced questions in MC.

(26) a. Zhangsan zai mou-ge shihou yin mou-zhong yuanyin qu-le
Zhangsan at some-CL time for some-CL reason go-ASP
Guangzhou,
Guangzhou
'Zhangsan went to Guangzhou at a certain time for a certain reason,'

b. dan wo bu zhidao [zai shenme shihou wei shenme].
but I not know at what time for what
'lit. but I don't know at what time for what.'
(adapted from Wang and Han 2018: 611)

The reduced question in (26b) with two adjunct *wh*-remnants, neither of which is preceded by *shi*, is acceptable.

Moreover, according to my study, reduced questions in MC allow the combination of an NP *wh*-remnant and a prepositional argument *wh*-remnant, as illustrated in (27).

(27) a. Mou-ge nanhai gei mou-ge nühai ji-le yi-feng xin,
some-CL boy to some-CL girl send-ASP one-CL letter
'Some boy sent a letter to some girl,'

b. wo xiang zhidao [na-ge nanhai gei na-ge nühai].
I want know which-CL boy to which-CL girl
'I want to know which boy to which girl.'

The reduced question in (27b), which is anteceded by (27a), is acceptable.

Lastly, reduced questions in MC allow more than two remnants (Takahashi and Lin 2012;

Park and Li 2013).

(28) a. Mou-ge nanhai zai mou-ge difang wei mou-ge
some-CL boy at some-CL place for some-CL
nühai mai-le liwu,
girl buy-ASP gift
'Some boy bought gifts for some girl at some place,'

b. dan wo wangji-le [na-ge nanhai zai na-ge difang wei
but I forget-ASP which-CL boy at which-CL place for
na-ge nühai].
which-CL girl
'lit. but I forgot which boy for which girl at which place.'

The sentence in (28a) is the antecedent of the reduced question in (28b) with three remnant phrases.

This subsection has reviewed reduced questions with different combinations of remnants in MC. Previous studies have reported that while the presence of *shi* is obligatory with bare NP *wh*-phrases, it is generally optional with other types of *wh*-phrases, such as specific NP *wh*-phrases, prepositional argument *wh*-phrases, and adjunct *wh*-phrases (e.g., Adams and Tomioka 2012). The usage of *shi* in RQMW parallels that in reduced single *wh*-questions in MC.

5.1.2.2 Properties

This subsection illustrates the properties of reduced embedded questions with multiple remnants in MC (Adams and Tomioka 2012; Park and Li 2013; Li and Wei 2017; Wang 2018; Wang and Han 2018) with respect to the appearance of a conjunction and the absence of the clause-mate effect.

5.1.2.2.1 The appearance of a conjunction

As discussed in the previous literature (Wei 2004; Chiu 2007; Adams and Tomioka 2012; Wang and Han 2018), reduced questions in MC allow the appearance of a coordinating conjunction like *yiji*. Before looking at the relevant data, let us first consider the usage of *yiji* in MC (Liu, Pan, and Gu 2019; Lü 2019).

(29) Hezi li you yashua, yagao, xiangzao, yiji shuzi.
container inside have toothbrush toothpaste soap and comb
'There are toothbrush, toothpaste, soap, and comb in the container.'
(cited from Zhang 2003: 629)

(30) Women xuyao bizhen, qingxi, yiji shifen xianyan de tuxiang.
we need lifelike clear and very colorful GEN image
'We need lifelike, clear, and colorful images.'
(cited from Zhang 2003: 629)

(31) a. Wo xihuan zai hu bian yiji zai gongyuan li sanbu.
I like in lake around and in park inside walk
'I like taking a walk by the lake and in the park.'

b. Wo kanjian xiao dongwu-men xiang dong yiji xiang bei
I saw little animal-PL towards east and towards north
benqu-le.
run-ASP
'I saw the little animals running towards the east and towards the north.'

Yiji can be used to conjoin NPs, AdjPs, and PPs, as illustrated in (29-31), respectively.

Moreover, *yiji* can conjoin CPs (e.g., Liu 2018; Wang and Han 2018), as demonstrated in (32-33).

(32) Ta wen-le wo xuduo wenti: [nali de qihou zenmeyang],
he ask-ASP me many question there GEN climate how
[shenghuo guo de guan guo bu guan], yiji [dangdi
life live DE get.used.to live not get.used.to and local
de fengsuxiguan zenmeyang].
GEN social.custom how
'He asked me many questions: How the climate is, whether I get used to living there, and how the social customs are.'
(cited from Lü 2019: 615)

(33) Wo zhidao [[Zhangsan xihuan Lili] yiji [Lisi taoyan Xiaohong]].
I know Zhangsan like Lili and Lisi hate Xiaohong.
'I know that Zhangsan likes Lili and that Lisi hates Xiaohong.'

Yiji can conjoin interrogative clauses and declarative clauses, as shown in (32) and (33), respectively.

Importantly, MC allows conjunctions to be covert (e.g., Zhu 1998; Chao 2011), as illustrated in (34).

(34) Wo zhidao [[Zhangsan xihuan Lili] (yiji) [Lisi taoyan Xiaohong]].
I know Zhangsan like Lili and Lisi hate Xiaohong
'I know that Zhangsan likes Lili and that Lisi hates Xiaohong.'

In (34), the presence of the conjunction *yiji* is optional (e.g., Chao 2011).

Bearing these in mind, let us proceed to consider reduced questions. See (35) below.

(35) a. Mouren tou-le tade yi-yang dongxi,
someone steal-ASP his one-CL thing
'Someone stole one of his belongings,'

b. wo xiang zhidao [*(shi) shei *(shi) shenme].
I want know SHI who SHI what
'lit. and I wonder who what.'

c. wo xiang zhidao [*(shi) shei yiji *(shi) shenme].
I want know SHI who and SHI what
'and I wonder who and what.'
(adapted from Adams and Tomioka 2012: 237)

The sentence in (35a) serves as the antecedent for the reduced question in (35b) containing two

NP *wh*-remnants. In the reduced question, the conjunction *yiji* is allowed to appear, as shown in (35c).

Let us consider another example.

(36) a. Zhangsan zai mou-ge shihou yin mou-zhong yuanyin qu-le
Zhangsan at some-CL time for some-CL reason go-ASP
Guangzhou,
Guangzhou
'Zhangsan went to Guangzhou at a certain time for a certain reason,'

b. dan wo bu zhidao [zai shenme shihou wei shenme].
but I not know at what time for what
'lit. but I don't know at what time for what.'
(adapted from Wang and Han 2018: 611)

c. dan wo bu zhidao [zai shenme shihou yiji wei shenme].
but I not know at what time and for what
'but I don't know at what time and for what.'

The reduced question in (36b), which is anteceded by (36a), contains two adjunct *wh*-remnants. As in (35), the conjunction *yiji* 'and' is allowed to appear in the reduced question, as shown in (36c) (Wei 2004; Chiu 2007; Adams and Tomioka 2012).

5.1.2.2.2 The absence of the clause-mate effect

According to the previous literature, multiple sluicing constructions adhere to the clause-mate condition cross-linguistically (e.g., Merchant 2001; Abels and Dayal 2022). As discussed in Adams and Tomioka 2012 and Wang 2018, however, the clause-mate effect is not observed in reduced questions with multiple remnants in MC. Consider the example below:

(37) a. Mouren gaosu Zhangsan [xuexiao mouchu you yi-chang
someone tell Zhangsan school someplace have one-CL
yanjiang],
speech
'Someone told Zhangsan that there was a speech at some place at school,'

b. dan wo bu zhidao [*(shi) shei (shi) zai nali].
but I not know COP who COP at where
'lit. but I don't know who where.'
(cited from Adams and Tomioka 2012: 240)

The sentence in (37a) antecedes the reduced question in (37b), which contains two *wh*-remnants. The correlates of the remnants belong to two different clauses. That is, the first correlate, *mouren* 'someone,' is from the matrix clause, and the second correlate, *mouchu* 'someplace,' comes from the embedded clause. The fact that the reduced question in (37b) is acceptable indicates that the clause-mate effect is not present in reduced questions in MC.

Let us look at another example.

(38) a. Cengjing you yi-ge ren gaosu wo [Lisi zui xihuan mou
once have one-CL person tell me Lisi most like certain
yi-zhong jiu],
one-CL wine
'Someone once told me that Lisi liked a certain kind of wine the most,'

b. zhishi wo zao yijing wang-le [shi shei na yi-zhong jiu].
only me early already forget-ASP SHI who which one-CL wine
'lit. it's just that I already forgot who which kind of wine.'
(cited from Wang 2018: 2)

The reduced question in (38b), which is anteceded by (38a), contains two *wh*-remnants. The correlates of the remnants belong to two different clauses. The correlate of the first remnant, *yi-ge ren* 'one-CL person,' comes from the matrix clause, and the correlate of the second remnant, *mou yi-zhong jiu* 'certain one-CL wine,' is from the embedded clause. That the reduced question in (38b) is acceptable indicates that the clause-mate effect is not observed.

5.1.2.3 A multi-clausal analysis

According to the previous literature (Wei 2004; Adams and Tomioka 2012; Li and Wei 2017), reduced embedded questions in MC can be explained by a multi-clausal analysis. Let us start our discussion with the example below.

(39) a. Mouren tou-le yi-ge dongxi,
someone steal-ASP one-CL thing
'Someone stole a thing,'

b. wo xiang zhidao *(shi) shei *(shi) shenme.
I want know COP who COP what
'lit. I wonder who what.'

c. wo xiang zhidao [[*pro* *(shi) shei] [*pro* *(shi) shenme]]
I want know he COP who it COP what
'I wonder who (he) was and what (it) was'
(adapted from Adams and Tomioka 2012: 237)

The sentence in (39a) antecedes the reduced question in (39b), which can be analyzed following the pseudo-sluicing analysis, as illustrated in (39c). (39c) contains two pseudo-sluiced clauses, each of which contains a null pronoun. The two *pro*s in (39c) are nominal *pro*s, which have antecedents in (39a), namely, *mouren* 'someone' and *yi-ge dongxi* 'one-CL thing,' respectively. According to the previous literature (Adams 2004; Wei 2004; Adams and Tomioka 2012), the nominal *pro*s are E-type pronouns with definite interpretation (Evans 1977; Heim and Kratzer 1998). That is, the first *pro* refers to *the person who stole a thing*, and the second *pro* refers to *the thing that the person stole*. The *pro* posited by the pseudo-sluicing analysis is independently allowed in MC, a *pro*-drop language (Huang 1984).

The pseudo-sluicing analysis can account for the observation that an overt conjunction is allowed to appear in RQMW in MC, as illustrated in (40).

(40) a. wo xiang zhidao *(shi) shei yiji *(shi) shenme.
I want know COP who and COP what
'I wonder who and what.'

b. wo xiang zhidao [[*pro* *(shi) shei] yiji [*pro* *(shi) shenme]]
I want know he COP who and it COP what
'I wonder who (he) was and what (it) was'

c. wo xiang zhidao [[*ta* *(shi) shei] yiji [*ta* *(shi) shenme]].
I want know he COP who and it COP what
'I wonder who he was and what it was.'
(adapted from Adams and Tomioka 2012: 237)

The reduced question in (40a), which is anteceded by (39a), is acceptable with the presence of the conjunction *yiji*. Since MC allows conjunctions to be covert, the acceptability of (39b) and (40a) is expected. In line with the pseudo-sluicing analysis, (40a) contains two conjoined pseudo-sluiced clauses, each having a null subject, as shown in (40b). Furthermore, the null subjects in (40b) can be replaced by overt pronouns, as in (40c). (40c) containing two conjoined pseudo-sluiced clauses, or copular clauses, is acceptable, which can be captured by the fact that *yiji* is able to conjoin two CPs. Therefore, we can see that the reduced question in (39b) involves multiple pseudo-sluiced clauses conjoined, an analysis called a multi-clausal analysis (Adams and Tomioka 2012; Park and Li 2013; Wang and Han 2018).

Let us consider another example.

(41) a. Zhangsan zai moushi qu mai-le yi-yang ta hen xihuan de
Zhangsan at some.time go buy-ASP one-CL he very like GEN
dongxi,
thing
'Zhangsan went to buy something he really liked at some time,'

b. danshi wo bu zhidao (shi) zai heshi (yiji) *(shi) shenme dongxi.
but I not know COP at when and COP what thing
'but I don't know when and what thing.'
(adapted from Adams and Tomioka 2012: 239)

c. danshi wo bu zhidao [[*pro* (shi) zai heshi] (yiji) [*pro* *(shi) shenme
but I not know it COP at when and it COP what
dongxi]]
thing
'but I don't know when (it) was and what thing (it) was'

d. danshi wo bu zhidao [[na shi zai heshi] (yiji) [ta shi shenme
but I not know that COP at when and it COP what
dongxi]].
thing
'but I don't know when that was and what thing it was.'

The sentence in (41a) functions as the antecedent for the reduced question in (41b), which contains an adjunct *wh*-remnant and an NP *wh*-remnant. The conjunction *yiji* can optionally appear in the reduced question. The reduced question can be analyzed as two conjoined pseudo-sluiced clauses, as in (41c). The second *pro* in (41c) is a nominal *pro*, which refers to *the thing*

that Zhangsan went to buy. The first *pro* in (41c) is an event-denoting *pro* (Wei 2009; 2011; Adams and Tomioka 2012). In the case of (41c), the eventive *pro* refers to *the event of Zhangsan buying the thing*. Lastly, the *pro*s can be spelled out, as illustrated in (41d).[3]

As discussed in the previous section, RQMW in MC do not adhere to the clause-mate condition, which can be accounted for by the multi-clausal analysis. Consider the example below:

(42) a. Cengjing you yi-ge ren gaosu wo [Lisi zui xihuan mou
once have one-CL person tell me Lisi most like certain
yi-zhong jiu],
one-CL wine
'Someone once told me that Lisi liked a certain kind of wine the most,'

b. zhishi wo zao yijing wang-le shi shei na yi-zhong jiu.
only me early already forget-ASP COP who which one-CL wine
'lit. it's just that I already forgot who which kind of wine.'
(cited from Wang 2018: 2)

c. zhishi wo zao yijing wang-le [[*pro* shi shei] (yiji) [*pro* (shi)
only me early already forget-ASP he COP who and it COP
na yi-zhong jiu]]
which one-CL wine
'it's just that I already forgot who (he) was and which kind of wine (it) was'

[3] As mentioned in the previous literature (e.g., Wei 2004; Adams 2004; Li and Wei 2017), when a *pro* is spelled-out as the demonstrative *na* 'that' in MC, the presence of the copula *shi* following the demonstrative is necessary.

d. zhishi wo zao yijing wang-le [[*ta* shi shei] (yiji) [*ta* (shi) na yi-zhong jiu]].
only me early already forget-ASP he COP who and it COP which one-CL wine
'it's just that I already forgot who he was and which kind of wine it was.'

The sentence in (42a) is the antecedent of the reduced question in (42b). The correlates of the two remnants in the reduced question do not belong to the same clause. Nevertheless, the reduced question is acceptable, indicating that the clause-mate effect is not observed. This observation can be captured by the multi-clausal analysis. The reduced question is analyzed as in (42c) with two conjoined pseudo-sluiced clauses, each having an empty *pro*. The first *pro* refers to *the person who once told me that Lisi liked a certain kind of wine the most*, and the second *pro* refers to *the kind of wine that the person once told me that Lisi liked the most*. The empty pronouns can be spelled out, as in (42d). Since the reduced question involves two independent clauses, each of which has a pronominal subject, it follows that the clause-mate effect is not observed.

According to my study, RQMW in MC are insensitive to island effects. Consider the data below:

(43) a. Zhangsan [yinwei mou-ge nühai zai mou-ge difang dasui-le yi-ge huaping er] shengqi,
Zhangsan because some-CL girl at some-CL place break-ASP one-CL vase ER angry
'Zhangsan got angry because some girl broke a vase at some place,'

b. wo xiang zhidao [shi na-ge nühai zai na-ge difang].
I want know COP which-CL girl at which-CL place
'I want to know which girl at which place.'

The sentence in (43a) antecedes the reduced question in (43b). The correlates of the *wh*-remnants are inside the adverbial clause, which constitutes islands for movement in MC (e.g., Huang 1982). The reduced question is acceptable, indicating that reduced questions in MC are insensitive to island effects. This observation can be explicated by the multi-clausal analysis, as illustrated in (44).

(44) a. wo xiang zhidao [[*pro* shi na-ge nühai] (yiji) [*pro* (shi) zai
I want know she COP which-CL girl and that COP at
na-ge difang]]
which-CL place
'I want to know which girl (she) was and at which place (that) was'

b. wo xiang zhidao [[*ta* shi na-ge nühai] (yiji) [*na* shi zai
I want know she COP which-CL girl and that COP at
na-ge difang]].
which-CL place
'I want to know which girl she was and at which place that was.'

As shown in (44a), the reduced question in (43b) is analyzed as containing two pseudo-sluiced clauses, each having an empty subject. The first *pro* is a nominal *pro*, which refers to *the girl such that Zhangsan got angry because she broke a vase at some place*, and the second *pro* is an

eventive *pro*, which refers to *the event in which the girl broke a vase, which made Zhangsan angry*. In line with the pseudo-sluicing analysis, the empty *pro*s can be spelled out, as shown in (44b). Since (44b), which contains two conjoined pseudo-sluiced clauses, does not involve islands, it follows that the reduced question does not exhibit the island effect.

Lastly, the multiple occurrences of the copula *shi* preceding *wh*-remnants in RQMW can be explained by the multi-clausal analysis since each pseudo-sluiced clause includes a copula. As discussed in the previous section, the appearance of *shi* is obligatory with the bare *wh*-phrases, *shei* 'who' and *shenme* 'what,' but optional with the other types of *wh*-phrases (Adams and Tomioka 2012). The usage of *shi* is explained in the previous literature (Wei 2004; 2009; 2011; Adams and Tomioka 2012). According to the prior literature, a pseudo-sluiced clause is comprised of a subject *pro* and a predicate, i.e., (shi)-*wh*-phrase. The bare *wh*-phrases are non-predicative. As a result, "the copular verb *shi* is required to link the subject *pro* and the *wh*-word" (Wei 2004, p. 276). In contrast, the other *wh*-phrases can be taken as predicates and thus do not need the support from *shi.* Nevertheless, Adams and Tomioka (2012) mention that RQMW are more natural when each *wh*-remnant is preceded by *shi*.

The discussions in this section show that the multi-clausal analysis is a viable analysis accounting for RQMW in MC (Wei 2004; Adams and Tomioka 2012; Li and Wei 2017). This analysis containing multiple pseudo-sluiced clauses does not posit *wh*-movement in MC, a *wh*-in-situ language.

5.2 Reduced embedded questions with pair-list interpretation

Cases of reduced embedded questions with multiple remnants examined in the previous literature all contain existential quantifiers as correlates of the remnants, as reviewed in section

5.1. See the example in (45) below.

(45) a. Mouren tou-le yi-ge dongxi,
someone steal-ASP one-CL thing
'Someone stole a thing,'

b. wo xiang zhidao [*(shi) shei *(shi) shenme].
I want know SHI who SHI what
'lit. and I wonder who what.'
(adapted from Adams and Tomioka 2012: 237)

In (45), the correlates of the two *wh*-remnants are *mouren* 'someone' and *yi-ge dongxi* 'one-CL thing,' which are existential quantifiers denoting the existence of a person or a thing. Cases like (45) have single-pair readings since they are answered with a single pair of a person and a stolen item like *John stole a book*.

In addition to cases with existential quantifiers as correlates, multiple sluicing constructions allow cases where the first correlate is a universal quantifier and the second correlate is an existential quantifier (Bolinger 1978; Nishigauchi 1998; Merchant 2001; 2006; Richards 2010). See the example below.

(46) a. Every man danced with a woman,

b. but I don't know [which man with which woman].
(adapted from Richards 2010: 3)

The sentence in (46a) is the antecedent of the reduced question in (46b). (46a) is a multiply

quantified sentence where the universal quantifier in the subject position takes wider scope than the existential quantifier. The reduced questions can be answered pairwise, like *John danced with Mary, David danced with Lily, and Bill danced with Emily*. This is the pair-list reading.

This section aims to examine reduced embedded questions with pair-list interpretation in MC and argues that cases with pair-list interpretation can be accounted for by a single-clausal analysis in terms of movement and deletion as put forth by Abels and Dayal (2022).

5.2.1 Basic phenomena

Bai and Takahashi (2023b) and Bai, Cortés Rodríguez, and Takahashi (2023) have studied reduced embedded questions with pair-list interpretation in MC. Let us start our discussion with the example below.

(47) a. Mei-ge ren dou wancheng-le moushi,
every-CL person all complete-ASP something
'Everyone completed something,'

b.*? wo zhishi bu zhidao [**shi** shei **shi** shenme].
I just not know SHI who SHI what
'I just don't know who what.'

c.* wo zhishi bu zhidao [**shi** shei shenme].
I just not know SHI who what
'I just don't know who what.'

d.* wo zhishi bu zhidao [shei **shi** shenme].
I just not know who SHI what

‘I just don’t know who what.’

e.* wo zhishi bu zhidao [shei shenme].
I just not know who what
‘I just don’t know who what.’

The sentence in (47a) functions to antecede the reduced questions in (47b-e) with two bare NP *wh*-remnants, *shei* ‘who’ and *shenme* ‘what.’ The reduced questions in (47b-e) show four different distributions of *shi*. According to Bai, Cortés Rodríguez, and Takahashi (2023), the presence of *shi* in front of bare NP *wh*-remnants is obligatory because cases with *shi* preceding each bare NP *wh*-phrase are significantly more acceptable than cases where one of the bare NP *wh*-phrases or neither are preceded by *shi*. The obligatory presence of *shi* in front of bare NP *wh*-phrases is not surprising since the same observation is made in reduced single questions and reduced questions with single-pair readings. Although cases like (47b) with *shi* preceding each bare NP *wh*-remnant are the most acceptable ones compared to cases like (47c-e), the average rating of cases like (47b) is 3.36 on a 7-point Likert scale (Bai, Cortés Rodríguez, and Takahashi 2023). This average rating means that cases of reduced questions with two bare NP *wh*-phrases like (47b) are very low in acceptability.

Next, let us look at the combination of two specific *wh*-phrases, as shown in (48).

(48) a. Mei-ge daxuesheng dou wancheng-le yi-ge xiangmu,
every-CL college.student all complete-ASP one-CL project
‘Every college student completed a project,’

b.?? wo zhishi bu zhidao [**shi** na-ge daxuesheng **shi** na-ge
I just not know SHI which-CL college.student SHI which-CL
xiangmu].
project
'I just don't know which college student which project.'

c.?? wo zhishi bu zhidao [**shi** na-ge daxuesheng na-ge xiangmu].
I just not know SHI which-CL college.student which-CL project
'I just don't know which college student which project.'

d.?? wo zhishi bu zhidao [na-ge daxueshengshi **shi** na-ge xiangmu].
I just not know which-CL college.student SHI which-CL project
'I just don't know which college student which project.'

e.?? wo zhishi bu zhidao [na-ge daxueshengshi na-ge xiangmu].
I just not know which-CL college.student which-CL project
'I just don't know which college student which project.'

The sentence in (48a) is the antecedent of the reduced questions in (48b-e). The reduced questions contain two specific NP *wh*-phrases. According to Bai, Cortés Rodríguez, and Takahashi (2023), cases with specific NP *wh*-phrases are significantly more acceptable than those with bare NP *wh*-phrases. Importantly, the presence of *shi* in front of specific NP *wh*-phrases is optional because the experimental results in Bai, Cortés Rodríguez, and Takahashi 2023 show only minimal differences among the average ratings of the four distributions of *shi*.

Then, let us consider the combination of a specific NP *wh*-phrase and an adjunct *wh*-phrase. See the data in (49).

(49) a. Mei-ge xuesheng dou zai mou-ge shijian qu-guo Beijing,
every-CL student all at some-CL time go-ASP Beijing
'Every student went to Beijing at some time,'

b.?? wo zhishi bu zhidao [**shi** na-ge xuesheng **shi** zai na-ge
I just not know SHI which-CL student SHI at which-CL
shijian].
time
'I just don't know which student at which time.'

c.? wo zhishi bu zhidao [**shi** na-ge xuesheng zai na-ge shijian].
I just not know SHI which-CL student at which-CL time
'I just don't know which student at which time.'

d.? wo zhishi bu zhidao [na-ge xuesheng **shi** zai na-ge shijian].
I just not know which-CL student SHI at which-CL time
'I just don't know which student at which time.'

e.? wo zhishi bu zhidao [na-ge xuesheng zai na-ge shijian].
I just not know which-CL student at which-CL time
'I just don't know which student at which time.'

The sentence in (49a) antecedes the reduced questions in (49b-e). The reduced questions include a specific NP *wh*-phrase and an adjunct *wh*-phrase containing the preposition *zai* 'at.' As discussed in Bai, Cortés Rodríguez, and Takahashi 2023, the presence of *shi* in front of specific NP *wh*-phrases and *wh*-phrases containing prepositions is optional because the experimental results do not show significant differences among the average ratings of the four distributions

of *shi*. Moreover, the experimental results reveal that cases with a preposition in the second remnant are significantly more acceptable than cases with two NP remnants.

Based on the discussion in this subsection, we can see that reduced embedded questions with pair-list interpretation are a marked construction in MC. Nevertheless, the presence of prepositions and specific *wh*-remnants is found to improve the overall acceptability of the relevant sentences (Bai, Cortés Rodríguez, and Takahashi 2023). Accordingly, I will not further discuss cases that are very degraded, such as cases with bare NP *wh*-phrases. In the following sections, I will focus on the more acceptable cases with prepositions in the remnants.

In addition, according to Bai, Cortés Rodríguez, and Takahashi (2023), the usage of *shi* in front of the *wh*-remnants is related to the nature of *wh*-phrases. That is, the presence of *shi* is obligatory for bare NP *wh*-phrases but optional for specific NP *wh*-phrases, prepositional argument *wh*-phrases, and adjunct *wh*-phrases. Since the presence of *shi* is optional in the more acceptable cases, I will argue that the usage of *shi* is a PF phenomenon in subsection 5.2.3.

5.2.2 Properties

This subsection details the properties of reduced embedded questions with pair-list interpretation.

5.2.2.1 Adherence to the clause-mate condition

As discussed in Bai and Takahashi (2023b), cases of RQMW with pair-list interpretation adhere to the clause-mate condition. Let us look at the example below.

(50) Context: Lili, Xiaoxia, and Xiaomei are classmates. In their class, there are three boys: Zhangsan, Lisi, and Wangwu. Xiaoxia says to Xiaomei:

a. Lili shuo-le [mei-ge nanhai ge zai yi-ge difang you-guo-yong],
Lili say-ASP every-CL boy each at one-CL place swim-ASP
'Lili said that every boy swam at a certain place,'

b.? wo xiang zhidao [na-ge nanhai zai na-ge difang].
I want know which-CL boy at which-CL place
'I want to know which boy at which place.'

The sentence in (50a) antecedes the reduced question in (50b). The correlates of the *wh*-remnants both belong to the embedded clause in (50a). The reduced question is acceptable with the specific NP *wh*-remnant and the adjunct *wh*-remnant.

Now let us examine what happens when the correlates of the remnants do not belong to the same clause. Consider (51):

(51) Context: There are three girls, Lili, Xiaomei, and Xiaohong. Their mutual friend, Lisi, swam at three different places during the summer vacation. Each of the three girls knew that he swam in one place.

a. Mei-ge nühai ge zhi [Lisi zai yi-ge difang you-guo-yong],
every-CL girl each know Lisi at one-CL place swim-ASP
'Every girl knows that Lisi swam at a certain place.'

b.* wo xiang zhidao [na-ga nühai zai na-ge difang].
I want know which-CL girl at which-CL place

'lit. I want to know which girl at which place.'

In (51a), which is intended to antecede the reduced question in (51b), the two correlates, namely *mei-ge nühai* 'every-CL girl' and *zai yi-ge difang* 'at one-CL place,' are not clause-mates. Accordingly, the reduced question in (51b) is not acceptable. The comparison between (50) and (51) shows that reduced questions with pair-list interpretation adhere to the clause-mate condition, a property of multiple sluicing constructions observed cross-linguistically.

5.2.2.2 The infelicity of the appearance of a conjunction

As discussed in section 5.1.2, reduced embedded questions with single-pair readings allow the appearance of a conjunction. In contrast, reduced questions with pair-list readings are infelicitous when a conjunction appears. See the example (52) below.

(52) Context: Lili and Xiaoxia are classmates. In their class, there are three boys: Zhangsan, Lisi, and Wangwu. Xiaoxia tells Lili that the three boys each swam at a different place during the summer vacation. Lili says:

a. Mei-ge nanhai ge zai yi-ge difang you-guo-yong.
every-CL boy each at one-CL place swim-ASP
'Every boy swam at a certain place.'

b.? Wo xiang zhidao [na-ge nanhai zai na-ge difang].
I want know which-CL boy at which-CL place
'I want to know which boy at which place.'

c.# Wo xiang zhidao [na-ge nanhai yiji zai na-ge difang].
I want know which-CL boy and at which-CL place
'lit. I want to know which boy and at which place.'

The sentence in (52a) serves to antecede the reduced questions in (52b-c). The reduced question in (52b), which contains a specific NP *wh*-phrase and an adjunct *wh*-phrase, is acceptable. The reduced question in (52b) can be answered with person-place pairs, like *Zhangsan swam at the luxury hotel, Lisi swam at the beach, and Wangwu swam in the river*. Next, let us consider (52c) with the conjunction *yiji*. Under the given context, (52c) is infelicitous. When *yiji* appears, the speaker wants to know the identities of the boys and the places where each boy swam. Under the context that the identities of the boys are known to the discourse participants, the presence of the conjunction makes the first *wh*-remnant redundant. Accordingly, the conjunction renders the reduced question in (52c) infelicitous.

Note that when the identity of the agent who performs the action is not known to discourse participants, the conjunction can appear, as shown in (53).

(53) Context: Lili and Xiaoxia are classmates. Xiaoxia tells Lili that one of the boys in their class swam at a place during the summer vacation. Lili says:

a. Zanmen ban de mou-ge nanhai zai yi-ge difang you-le-yong.
our class GEN some-CL boy at one-CL place swim-ASP
'A boy in our class swam at a place.'

b. Wo xiang zhidao [na-ge nanhai zai na-ge difang].
I want know which-CL boy at which-CL place
'I want to know which boy at which place.'

c. Wo xiang zhidao [na-ge nanhai yiji zai na-ge difang].
I want know which-CL boy and at which-CL place
'I want to know which boy and at which place.'

The sentence in (53a) antecedes the reduced questions in (53b-c), which yield single-pair reading. The presence of the conjunction *yiji* is felicitous under the context that the speaker does not know the identity of the boy and can thereby question who the boy was.

5.2.3 Analysis

This subsection discusses the theoretical analysis that can account for reduced embedded questions with pair-list interpretation.

5.2.3.1 Arguments against the multi-clausal analysis

As discussed in section 5.1.2, reduced embedded questions with single-pair readings can be explained by the multi-clausal analysis, which involves the conjunction of single *wh*-questions (Wei 2004; Adams and Tomioka 2012; Li and Wei 2017). As for reduced questions with pair-list readings, Bai and Takahashi (2023b) argue that they cannot be accounted for by the multi-clausal analysis. Let us start our discussion with the interpretation of multiple *wh*-questions and conjoined single *wh*-questions. See the data in (54).

(54) a. Shui mai-le shenme?
who buy-ASP what
'Who bought what?'

b. Zhangsan mai-le shu.
Zhangsan buy-ASP book
'Zhangsan bought books.'

c. Zhangsan mai-le shu. Lisi mai-le CD. Wangwu mai-le DVD.
Zhangsan buy-ASP book Lisi buy-ASP CD Wangwu buy-ASP DVD
'Zhangsan bought books. Lisi bought CDs. Wangwu bought DVDs.'

The multiple *wh*-question in (54a) is ambiguous, as it can be answered either with (54b), which is the single-pair interpretation, or with (54c), which is the pair-list interpretation (e.g., Liao and Wang 2009).

Bearing this in mind, let us consider what interpretation is available for conjoined single *wh*-questions in MC. Let us begin with the following data:

(55) Context: Zhangsan and Lisi are classmates. Zhangsan told Lisi that one of their classmates bought something expensive.

a. Lisi: Gaosu wo [shui mai-le shenme].
tell me who buy-ASP what
'Tell me who bought what.'

b. Lisi: Gaosu wo [shui mai-le anggui de dongxi (yiji)
tell me who buy-ASP expensive GEN thing and
ta mai-le shenme].
3SG buy-ASP what
'Tell me who bought something expensive and what he/she bought.'

c. Lisi: Gaosu wo [na-ge ren shi shui (yiji) na-ge
tell me that-CL person SHI who and that-CL
dongxi shi shenme].
thing SHI what
'Tell me who that person is and what that thing is.'

The context forces single-pair interpretation. The multiple *wh*-question in (55a) and the conjoined single *wh*-questions in (55b-c) are all felicitous in the context. Conjoined single *wh*-questions are compatible with contexts forcing single-pair interpretation.

Let us next examine whether conjoined single *wh*-questions in MC are compatible with pair-list interpretation. Consider the data below:

(56) Context: Lili and Xiaoxia are classmates. Lili tells Xiaoxia that three students in their class went to a karaoke venue and each of them sang a song. Then, Xiaoxia asks Lili:

a. Shui chang-le ge? Tamen/*pro*/*ta chang-le shenme ge?
who sing-ASP song they/*pro*/3SG sing-ASP what song
'Who sang a song? And what song did they sing?'

b. Tamen shi shui? Naxie shi shenme ge?
they SHI who those SHI what song
'Who were they? And what songs were those?'

The context here is that the identities of the three students who went to a karaoke venue are not known to Xiaoxia. The conjoined single *wh*-questions in (56a-b) are felicitous. Note that the subject of the second clause in (56a) can be a plural or empty pronoun, and (56a) can be answered by supplying pairs of a person and a song, like *John sang My Way, Bill sang Yesterday, and Tom sang Let It Be*. In contrast, (56b) may not be answered felicitously by the list of person-song pairs. The two questions in (56b) need to be answered independently, like *They were John, Bill, and Tom, and the songs were My Way, Yesterday, and Let It Be.*

Now let us modify the context in (56) as in (57), according to which the boys who went to a karaoke shop and sang songs are known to the discourse participants.

(57) Context: Lili and Mary are classmates. There are three boys in their class: John, Bill, and Tom. Lili tells Mary that the three boys went to a karaoke venue and that every one of them sang a song. Then, Mary asks Lili:

a. Ni neng caidao [shui chang-le shenme ge] ma?
you can guess who sing-ASP what song PRT
'Can you guess who sang what sang?'

b. # Ni neng caidao [shui chang-le ge yiji ta/tamen chang-le shenme ge] ma?
you can guess who sing-ASP song and he/they sing-ASP what song PRT

‘Can you guess who sang a song and what song he/they sang?’

c. # Ni neng caidao [ta/tamen shi shui yiji na/naxie shi
you can guess he/they SHI who and that/those SHI
shenme ge] ma?
what song PRT
‘Can you guess who he/they was/were and what song(s) that/those was/were?’

The multiple *wh*-question in (57a) is perfectly compatible with asking which boy sang what song. What is significant is the incompatibility of the conjoined single *wh*-questions in (57b-c) with the context. This is understandable because the first questions in (57b-c) are pragmatically odd: The speaker has already known the identities of the boys who went to a karaoke shop and sang songs.

Thus far, we can see that multiple *wh*-questions are ambiguous between single-pair and pair-list interpretation. In contrast, conjoined single *wh*-questions can have a single-pair reading but are generally incompatible with the contexts demanding pair-list answers (e.g., Citko 2013 and Gračanin-Yuksek 2017). Consequently, the prediction is that the multi-clausal analysis involving conjoined single *wh*-questions should not be able to explain cases of reduced embedded questions with pair-list interpretation in MC.

To examine the prediction, let us look at (58).

(58) Context: Lili and Xiaoxia are classmates. In their class, there are three boys: Zhangsan, Lisi, and Wangwu. Xiaoxia tells Lili that the three boys each swam at a different place during the summer vacation. Lili says:

a. Mei-ge nanhai ge zai yi-ge difang you-guo-yong.
every-CL boy each at one-CL place swim-ASP
'Every boy swam at a certain place.'

b.? Wo xiang zhidao [na-ge nanhai zai nali].
I want know which-CL boy at where
'lit. I want to know which boy where.'

A pair-list interpretation is forced in (58b). If the multiple-clausal analysis were on the right track, (58b) should have the following structure:

(59) wo xiang zhidao [[*pro* (shi) na-ge nanhai], [*pro* (shi) zai nali]]
I want know he COP which-CL boy that/those COP at where
'I wonder which boy he was and where that/those was/were'

(59) can be lexicalized in the following way:

(60) Wo xiang zhidao [[*ta* shi na-ge nanhai] (yiji) [*na* shi zai nali]].
I want know he be which-CL boy and that be at where
'I wonder which boy he was and where that/those was/were.'

In (60), the lexical pronouns appear in place of the empty pronouns in (59). (60) does not sound

very natural;[4] furthermore, it crucially is incompatible with the context and the antecedent sentence in (58) because the identities of the boys are known to the discourse participants and thus it is pragmatically odd to ask about the identities of them. Additionally, the appearance of the conjunction in the reduced question is predicted to be allowed in line with the multi-clausal analysis. However, as discussed in section 5.2.2, the appearance of the conjunction makes the relevant reduced questions infelicitous. Lastly, if the multi-clausal analysis were able to explain reduced questions with pair-list interpretation, then the clause-mate effect should not be observed, just as that in reduced questions with single-pair interpretation. Contrarily, the clause-mate effect is observed, as discussed in section 5.2.2.

The discussions in this subsection show that the multi-clausal analysis is unlikely to be able to account for reduced questions with pair-list interpretation. Bai and Takahashi (2023b) suggest that they should be analyzed in terms of a single-clausal analysis, which will be considered in the following subsection.

5.2.3.2 A single-clausal analysis

This subsection presents a single-clausal analysis, based on Abels and Dayal 2022, to explicate the properties of reduced embedded questions with pair-list interpretation. Let us first look at the proposal advanced by Abels and Dayal (2022) to account for multiple sluicing in English. Consider (61):

[4] (60) is not very natural because *ta* 'he' under the context indicates a male, which is semantically a bit redundant when it appears together with *na-ge nanhai* 'which-CL boy.'

(61) a. Every student talked to some professor,

b. but I don't know [which student to which professor].

(cited from Abels and Dayal 2022: 11)

The sentence in (61a) antecedes the multiple sluicing sentence in (61b). The derivational process of the reduced question is shown in (62).

(62) [wh_1 [wh_2 [E-site … wh_1 […wh_2…]]]]

(cited from Abels and Dayal 2022: 10)

The two *wh*-phrases belong to the same clause. The first *wh*-phrase, namely, *which student*, undergoes overt *wh*-movement to the specifier position of CP. Then the second *wh*-phrase, i.e., *to which professor*, undergoes covert phrasal *wh*-movement to the lower specifier position of CP (Richards 1999). The second *wh*-phrase tucks in below the first *wh*-phrase. Subsequently, IP ellipsis is applied to the structure, and the multiple sluicing sentence is derived. According to the chain reduction algorithm (e.g., Gärtner 2002; Nunes 2004; Johnson 2012), the higher copy is pronounced in the case of overt movement, while the lower copy is pronounced in the case of covert movement. After IP ellipsis is applied, the higher copy of the second *wh*-phrase is actually the lowest copy. Accordingly, the higher copy in the covert movement is made overt in multiple sluicing (Abels and Dayal 2022).

Abels and Dayal's (2022) proposal can be applied to explain reduced questions in MC. Let us start our discussion with the example below.

(63) Context: There were three researchers, John, Lili, and Mary, each of whom had an adventure at a different place. Lisi and I were aware of this situation. I said to Lisi:

a. Mei-ge yanjiuzhe ge zai yi-ge difang tan-guo-xian,
every-CL researcher each at one-CL place adventure-ASP
'Every researcher had an adventure at a (different) place,'

b.? wo xiang zhidao [(shi) na-ge yanjiuzhe zai na-ge difang].
I want know FOC which-CL researcher at which-CL place
'I want to know which researcher at which place.'

The sentence in (63a) antecedes the reduced question in (63b) with the specific NP *wh*-remnant and the adjunct *wh*-remnant, in which the pair-list interpretation is forced. The reduced question in (63b) can be derived from movement of *wh*-phrases followed by IP deletion. The step-by-step derivational processes of the reduced question in (63b) are explained in (64-69).

(64) [$_{FocP}$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ na-ge yanjiuzhe zai na-ge difang
FOC which-CL researcher at which-CL place
tan-guo-xian]]]
adventure-ASP
'which researcher had an adventure at which place'

The reduced question in (63b) is derived from the multiple *wh*-question in (64) containing the focus marker *shi*. In line with the cartographic approach (Rizzi 1997; 2001; Rizzi and Bocci 2017), the CP projection is split into different layers, as shown in (65).

(65) Force (Top*) Int (Top*) Foc (Top*) Fin IP

(cited from Rizzi 2001: 289)

Following Abels and Dayal (2022), first, the subject *wh*-phrase undergoes overt movement to the specifier position of FocP, as illustrated in (66).

(66) [$_{FocP}$ na-ge yanjiuzhe$_i$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ t$_i$ zai na-ge difang

which-CL researcher FOC at which-CL place

tan-guo-xian]]]

adventure-ASP

①

Note that overt focus movement of *wh*-phrases is independently allowed in MC (e.g., Hoh and Chiang 1990; Cheung 2014; Song 2016), as shown in (67).

(67) a. (Shi) shenme dongxi$_i$, ni mai-le t$_i$?

FOC what thing you buy-ASP

'What thing was it that you bought?'

(cited from Cheung 2014: 398)

b. (Shi) shenme shihou$_i$, Zhangsan yinggai t$_i$ zou ne?

FOC what time Zhangsan should leave Q

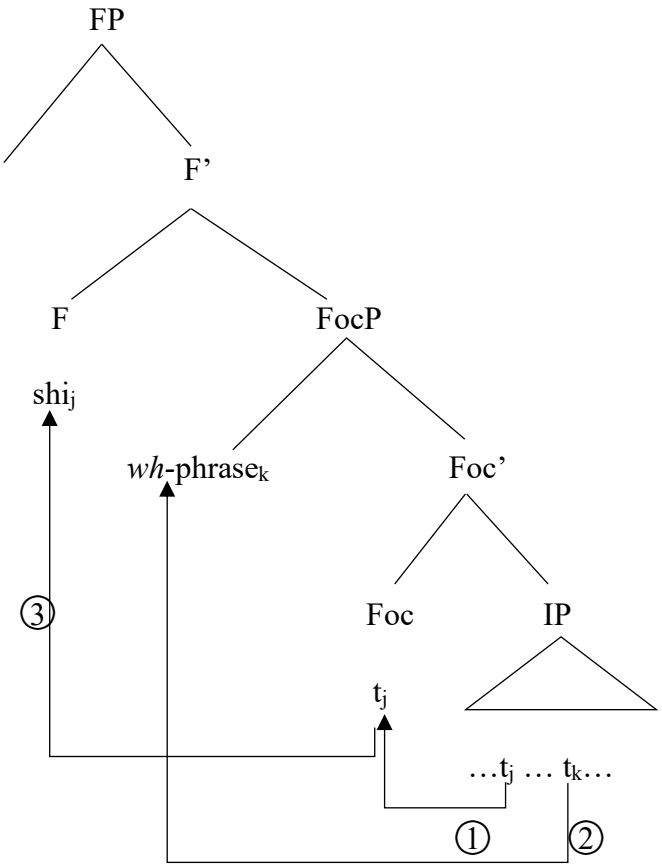
'When is it that Zhangsan should leave?'

(cited from Cheung 2014: 401)

According to the previous literature (e.g., Cheung 2014; Song 2016), the *wh*-phrases in (67)

undergo focus movement to the specifier position of FocP, as illustrated in (68).

(68)



(cited from Cheung 2014: 419)

Shi is base-generated in the head of IP (Hoh and Chiang 1990). It is moved from IP to the Foc head to be licensed as a focus marker (Hoh and Chiang 1990; Cheung 2014). Then the *wh*-phrase is moved to the specifier position of FocP so that it can be licensed in a Spec-Head configuration. Further, *shi* is moved to the head of a higher functional projection to c-command the *wh*-phrase (Cheung 2014). This way, the *wh*-fronting sentences in (67) are derived. In the *wh*-fronting construction, the presence of the focus marker *shi* is optional. According to Cheung (2014), *shi* can be deleted at PF. The PF deletion of *shi* is allowed given that the presence or absence of *shi* does not affect the semantics and the syntax of the relevant construction; thus,

the PF deletion does not violate the Principle of Recoverability of Deletion (Chomsky 1965).

Now let us return to the discussion on the derivation of the reduced question in (63b). Subsequent to the overt focus movement of the subject *wh*-phrase, the second *wh*-phrase undergoes covert phrasal movement to the lower specifier position of FocP, as shown by the dashed arrow in (69a).

(69) a. [$_{FocP}$ na-ge yanjiuzhe$_i$ [$_{Foc'}$ zai na-ge difang$_j$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ t$_i$ t$_j$

which-CL researcher at which-CL place FOC

tan-guo-xian]]]]

① ②

adventure-ASP

b. [$_{FP}$ shi$_k$ [$_{FocP}$ na-ge yanjiuzhe$_i$ [$_{Foc'}$ zai na-ge difang$_j$ [$_{Foc'}$ t$_{kFoc}$

FOC which-CL researcher at which-CL place

[$_{IP}$ t$_i$ t$_j$ tan-guo-xian]]]]]

adventure-ASP

c. [$_{FP}$ shi$_k$ [$_{FocP}$ na-ge yanjiuzhe$_i$ [$_{Foc'}$ zai na-ge difang$_j$ [$_{Foc'}$ t$_{kFoc}$

FOC which-CL researcher at which-CL place

[$_{IP}$ t$_i$ t$_j$ tan-guo-xian]]]]]

adventure-ASP

Next, *shi* is moved to the head of a higher functional projection to c-command the fronted *wh*-phrases (Cheung 2014), as shown in (69b). Lastly, IP deletion is applied to the structure, indicated with grey shading in (69c); the reduced question in (63b) is thereby derived. According to Abels and Dayal (2022), the covertly moved *wh*-phrase is realized overtly under PF deletion.

Now let us look at another example.

(70) Context: There are three volunteers: Zhangsan, Lisi, and Wangyu. Each of them once sterilized a different type of objects. My friend Lili and I were aware of this situation. And I said to Lili:

a. Mei-wei zhiyuanzhe dou gei mou-zhong wupin xiao-guo-du,
every-CL volunteer all for some-CL object sterilize-ASP
'Every volunteer sterilized a certain type of objects,'

b.? wo zhishi bu zhidao [(shi) na-wei zhiyuanzhe gei na-zhong wupin].
I just not know FOC which-CL volunteer for which-CL object
'lit. I just don't know which volunteer which type of objects.'

c. wo zhishi bu zhidao [$_{FocP}$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ na-wei zhiyuanzhe gei na-zhong wupin xiao-guo-du]]].
I just not know FOC which-CL volunteer for which-CL object sterilize-ASP
'I just don't know which volunteer sterilized which type of objects.'

The sentence in (70a) is the antecedent of the reduced question in (70b) with an NP *wh*-remnant and a prepositional argument *wh*-remnant and the full-fledged multiple *wh*-question in (70c). The reduced question can be derived from (70c). See (71) for the derivational process.

(71) a. [$_{FocP}$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ na-wei zhiyuanzhe gei na-zhong wupin
FOC which-CL volunteer for which-CL object
xiao-guo-du]]]
sterilize-ASP
'which volunteer sterilized which type of objects'

b. [$_{FocP}$ na-wei zhiyuanzhe$_i$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ t$_i$ gei na-zhong wupin
which-CL volunteer FOC for which-CL object
xiao-guo-du]]]
sterilize-ASP

c. [$_{FocP}$ na-wei zhiyuanzhe$_i$ [$_{Foc'}$ gei na-zhong wupin$_j$ [$_{Foc'}$ shi$_{Foc}$
which-CL volunteer for which-CL object FOC
[$_{IP}$ t$_i$ t$_j$ xiao-guo-du]]]]
sterilize-ASP

d. [$_{FP}$ shi$_k$ [$_{FocP}$ na-wei zhiyuanzhe$_i$ [$_{Foc'}$ gei na-zhong wupin$_j$
FOC which-CL volunteer for which-CL object
[$_{Foc'}$ t$_{kFoc}$ [$_{IP}$ t$_i$ t$_j$ xiao-guo-du]]]]]
sterilize-ASP

e. [$_{FP}$ shi$_k$ [$_{FocP}$ na-wei zhiyuanzhe$_i$ [$_{Foc'}$ gei na-zhong wupin$_j$
FOC which-CL volunteer for which-CL object
[$_{Foc'}$ t$_{kFoc}$ [$_{IP}$ t$_i$ t$_j$ xiao-guo-du]]]]]
sterilize-ASP

First and foremost, the subject *wh*-phrase in (71a) undergoes overt movement to the specifier position of FocP, as shown in (71b). Then the prepositional argument *wh*-phrase undergoes

covert phrasal movement and tucks in below the subject *wh*-phrase, as in (71c). Further, the focus marker is raised to a higher functional projection to c-command the fronted *wh*-phrases, as illustrated in (71d).[5] Lastly, IP is deleted, indicated with grey shading in (71e); thus, the reduced question in (70b) is derived.

As discussed in section 5.2.1, the presence of *shi* is optional for specific NP *wh*-phrases, prepositional argument *wh*-phrases, and adjunct *wh*-phrases in reduced embedded questions. The optional presence of *shi* can be explained. According to the previous literature (Hoh and Chiang 1990; Cheung 2014), *shi* in a *wh*-fronting construction can be deleted at PF. The PF deletion of *shi* is allowed given that the presence or absence of *shi* does not affect the semantics and the syntax of the relevant construction; thus, the PF deletion does not violate the Principle of Recoverability of Deletion (Chomsky 1965). Moreover, the presence of *shi* in front of the second remnant phrase seems to be optional, but in fact, its presence lowers the acceptability ratings of some reduced questions, as reported in Bai, Cortés Rodríguez, and Takahashi 2023. See (72) for an illustration.

(72) a. Mei-ge xuesheng dou zai mou-ge shihou tou-guo-lan,
every-CL student all at some-CL time slack.off-ASP
'Every student slacked off at some time,'

b.?? wo zhishi bu zhidao [**shi** na-ge xuesheng **shi** zai shenme shihou].
I just not know SHI which-CL student SHI at what time
$\bar{x}$=4.4

[5] According to the previous literature (e.g., Li and Cheung 2015), MC allows multiple focused elements in one sentence. For instance, the focus marker *shi* can be associated with multiple *wh*-phrases in a multiple *wh*-question.

‘I just don’t know which student at what time.’

c.? wo zhishi bu zhidao [**shi** na-ge xuesheng zai shenme
I just not know SHI which-CL student at what
shihou]. $\bar{x}$=5.3
time
‘I just don’t know which student at what time.’

The example in (72) is a test item in Bai, Cortés Rodríguez, and Takahashi 2023 and is judged on a 7-point Likert scale. The average rating of (72c) with the first remnant being preceded by *shi* is higher than that of (72b) with both remnants preceded by *shi*. Taking cases like (72) into account, I argue that the presence of the second *shi* is not necessary. Rather, the sentences are more acceptable without it. This is in line with the single-clausal analysis because *shi* as a focus marker does not appear twice in a sentence. See (73) for an illustration.

(73) a.* Shi shei mai-le shi shenme?
FOC who buy-ASP FOC what
‘Who bought what?’

b.* Shi shei shi mai-le shenme?
FOC who FOC buy-ASP what
‘Who bought what?’

c.* Shi shei shi shenme mai-le?
FOC who FOC what buy-ASP
‘Who bought what?’

As shown in (73), the sentences containing two *shi*s are not acceptable.

The reduced questions in (63) and (70) each contain two *wh*-remnants. In fact, reduced questions in MC allow the presence of more than two remnants. See the example below.

(74) Context: There are three students: Zhangsan, Lisi, and Xiaomei. Each of them once photographed a kind of animal at a different time. Lili and I were aware of this situation. I said to Lili:

a. Mei-ge xuesheng ge zai mou-ge shijian gei mou-zhong
every-CL student each at some-CL time for some-CL
dongwu pai-le zhaopian,
animal photograph-ASP photo
'Every student took photos of some animal at some time,'

b.? wo zhishi bu zhidao [shi na-ge xuesheng zai shenme shijian
I just not know FOC which-CL student at what time
gei na-zhong dongwu].
for which-CL animal
'I just don't know which student of which animal at what time.'

c. wo zhishi bu zhidao [$_{FocP}$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ na-ge xuesheng zai
I just not know FOC which-CL student at
shenme shijian gei na-zhong dongwu pai-le zhaopian]]].
what time for which-CL animal photograph-ASP photo
'I just don't know which student took photos of which animal at what time.'

The sentence in (74a) serves to antecede the reduced question in (74b) with three *wh*-remnants

and the full-fledged multiple *wh*-question in (74c). The reduced question is derived as follows:

(75) a. [$_{FocP}$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ na-ge xuesheng zai shenme shijian
FOC which-CL student at what time
gei na-zhong dongwu pai-le zhaopian]]]
for which-CL animal photograph-ASP photo
'which student took photos of which animal at what time'

b. [$_{FocP}$ na-ge xuesheng$_i$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ t$_i$ zai shenme shijian
which-CL student FOC at what time
gei na-zhong dongwu pai-le zhaopian]]]
for which-CL animal photograph-ASP photo

c. [$_{FocP}$ na-ge xuesheng$_i$ [$_{Foc'}$ zai shenme shijian$_j$ [$_{Foc'}$ shi$_{Foc}$
which-CL student at what time FOC
[$_{IP}$ t$_i$ t$_j$ gei na-zhong dongwu pai-le zhaopian]]]]
for which-CL animal photograph-ASP photo

d. [$_{FocP}$ na-ge xuesheng$_i$ [$_{Foc'}$ zai shenme shijian$_j$ [$_{Foc'}$ gei na-zhong
which-CL student at what time for which-CL
dongwu$_k$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ t$_i$ t$_j$ t$_k$ pai-le zhaopian]]]]]
animal FOC photograph-ASP photo

e. [$_{FP}$ shi$_n$ [$_{FocP}$ na-ge xuesheng$_i$ [$_{Foc'}$ zai shenme shijian$_j$ [$_{Foc'}$ gei
FOC which-CL student at what time for
na-zhong dongwu$_k$ [$_{Foc'}$ t$_{nFoc}$ [$_{IP}$ t$_i$ t$_j$ t$_k$ pai-le zhaopian]]]]]]
which-CL animal photograph-ASP photo

f. [$_{FP}$ shi$_n$ [$_{FocP}$ na-ge xuesheng$_i$ [$_{Foc'}$ zai shenme shijian$_j$ [$_{Foc'}$ gei

FOC which-CL student at what time for

na-zhong dongwu$_k$ [$_{Foc'}$ t$_{nFoc}$ [$_{IP}$ t$_i$ t$_j$ t$_k$ pai-le zhaopian]]]]]]

which-CL animal photograph-ASP photo

First, the subject *wh*-phrase in (75a) undergoes movement overtly to the specifier position of FocP. Then, the adjunct *wh*-phrase is moved covertly to the lower specifier position of FocP, as shown in (75c). Further, the prepositional argument *wh*-phrase undergoes covert phrasal movement and tucks in below the adjunct *wh*-phrase, as in (75d). Subsequently, the focus marker *shi* is raised to a higher functional projection to c-command the fronted *wh*-phrases, as shown in (75e). Lastly, IP is deleted, as illustrated in (75f). IP ellipsis deletes the lower copies created by the covert movement. Thus, the higher copies of the covert movement are pronounced, and the reduced question in (74b) is derived.

As discussed in section 5.2.2, RQMW with pair-list interpretation adhere to the clause-mate condition, which is compatible with Abel and Dayal's (2022) assumption that covert *wh*-movement is clause-bounded. See (76) for an illustration.

(76) a. [*wh*$_1$ [*wh*$_2$ [$_{Ellipsis\ site}$ … *wh*$_1$ … [$_{CP}$ … *wh*$_2$ …]]]]

*long covert *wh*-movement

b. [*wh*$_1$ [*wh*$_2$ [$_{Ellipsis\ site}$ … *wh*$_1$ … [$_{CP}$ *wh*$_2$ [… *wh*$_2$ …]]]]]

*cyclic covert *wh*-movement

(cited from Abels and Dayal 2022: 11-12)

The covert *wh*-movement in (76a) is long-distance movement, and that in (76b) is successive-cyclic movement. Both are not allowed across the clausal boundary. The property of covert movement being clause-bounded is supported by independent evidence such as intervention effects and the clause-boundedness in trapped lists (see Abels and Dayal 2022 for detailed discussions).

Now let us look at the reduced question in (77) below.

(77) Context: There are three girls, Lili, Xiaomei, and Xiaohong. Their mutual friend, Lisi, swam at three different places during the summer vacation. Each of the three girls knew that he swam in one place.

a. Mei-ge nühai ge zhidao [Lisi zai yi-ge difang you-guo-yong].
every-CL girl each know Lisi at one-CL place swim-ASP
'Every girl knows that Lisi swam at a certain place.'

b.* Wo xiang zhidao [(shi) na-ga nühai zai na-ge difang].
I want know FOC which-CL girl at which-CL place
'lit. I want to know which girl at which place.'

c. Wo xiang zhidao [$_{FocP}$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ na-ga nühai zhidao [$_{CP}$ Lisi zai na-ge difang you-guo-yong]]]].
I want know FOC which-CL girl know Lisi at which-CL place swim-ASP
'I want to know which girl knows Lisi swam at which place.'

The sentence in (77a) is the antecedent of the reduced question in (77b) and the full-fledged

multiple question in (77c). In order to obtain the reduced question, the *wh*-phrase *na-ge nühai* 'which-CL girl' first undergoes overt movement to the specifier position of FocP. Subsequently, the adjunct *wh*-phrase *zai na-ge difang* 'at which-CL place' from the embedded clause needs to be covertly moved to the same FocP as the subject *wh*-phrase. This movement crosses the clause boundary and is not allowed, as shown in (76a-b). Since the covert movement is ruled out, the unacceptability of the reduced question in (77b) is expected.

Next, let us consider the order of the remnant *wh*-phrases in reduced questions with multiple remnants. Consider (78):

(78) Context: There are three volunteers: Zhangsan, Lisi, and Wangyu. Each of them once sterilized a different type of objects. My friend Lili and I were aware of this situation. And I said to Lili:

a. Mei-wei zhiyuanzhe dou gei mou-zhong wupin xiao-guo-du,
every-CL volunteer all for some-CL object sterilize-ASP
'Every volunteer sterilized a certain type of objects,'

b. wo zhishi bu zhidao [$_{FocP}$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ na-wei zhiyuanzhe gei na-zhong wupin xiao-guo-du]]].
I just not know FOC which-CL volunteer for which-CL object sterilize-ASP
'I just don't know which volunteer sterilized which type of objects.'

c.? wo zhishi bu zhidao [(shi) na-wei zhiyuanzhe gei na-zhong wupin].
I just not know FOC which-CL volunteer for which-CL object

'lit. I just don't know which volunteer which type of objects.'

d.* wo zhishi bu zhidao [(shi) gei na-zhong wupin na-wei
I just not know FOC for which-CL object which-CL
zhiyuanzhe].
volunteer
'lit. I just don't know which type of objects which volunteer.'

The sentence in (78a) antecedes the full-fledged multiple *wh*-question in (78b) and the reduced questions in (78c-d). The reduced question in (78c) is acceptable, where the order of the *wh*-remnants is in accordance with that of their respective correlates in (78a). In contrast, the reduced question in (78d), where the order of the *wh*-remnants does not conform to that of their respective correlates in (78a), is not acceptable. The comparison between (78c) and (78d) can be explained by the analysis presented in this subsection, as illustrated in (79).

(79) a. [$_{FocP}$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ na-wei zhiyuanzhe gei na-zhong wupin
FOC which-CL volunteer for which-CL object
xiao-guo-du]]]
sterilize-ASP
'which volunteer sterilized which type of objects'

b. [$_{FocP}$ na-wei zhiyuanzhe$_i$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ t_i gei na-zhong wupin
which-CL volunteer FOC for which-CL object
xiao-guo-du]]]
sterilize-ASP

c. [$_{FocP}$ na-wei zhiyuanzhe$_i$ [$_{Foc'}$ gei na-zhong wupin$_j$ [$_{Foc'}$ shi$_{Foc}$
which-CL volunteer for which-CL object FOC
[$_{IP}$ t_i t_j xiao-guo-du]]]]
sterilize-ASP

d.* [$_{FocP}$ gei na-zhong wupin$_j$ na-wei zhiyuanzhe$_i$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ t_i t_j
for which-CL object which-CL volunteer FOC
xiao-guo-du]]]
sterilize-ASP

The subject *wh*-phrase in (79a) undergoes overt movement to the specifier position of FocP, as in (79b). Then the prepositional argument *wh*-phrase undergoes covert phrasal movement and tucks in below the first *wh*-phrase, as shown in (79c). The order of the *wh*-remnants in (78c) can be derived after IP ellipsis is applied to (79c). In order to derive the order of the *wh*-remnants in (78d), the prepositional argument *wh*-phrase is moved crossing over the first *wh*-phrase, as in (79d). This operation is not allowed since covert *wh*-movement is sensitive to Superiority (Pesetsky 2000; Abels and Dayal 2022). According to Abels and Dayal (2022), "*wh*-movement is subject to Attract Closest. As a consequence, the highest *wh*-phrase moves first. Further *wh*-phrases, if they move (covertly in languages like English, overtly in multiple *wh*-fronting languages), tuck in below the first *wh*-phrase. This set of assumptions implies that all *wh*-movement must obey Superiority" (Abels and Dayal 2022, p. 14). Since the covert phrasal movement in (79d) is not allowed, the unacceptability of the reduced question in (78d) is expected.

This subsection has detailed an analysis of the observed properties of reduced embedded questions with pair-list interpretation in MC. Based on Abels and Dayal 2022, the first *wh*-

phrase undergoes overt movement, and the second *wh*-phrase undergoes covert phrasal movement. After IP deletion is applied, the reduced question can be obtained. This analysis accounts for the absence of a conjunction in reduced questions with pair-list interpretation since the remnants undergo separate movement and do not form one constituent. Additionally, reduced questions with pair-list interpretation in MC are analyzed in the same vein as those in English. Readers may wonder whether RQMW with pair-list interpretation can be explained by other analyses, such as the reduced cleft analysis or the reduced pseudo-cleft analysis. As discussed in subsection 5.1.1.2, neither analysis can explicate reduced questions in MC because of some discrepancies between the cleft and pseudo-cleft constructions and reduced questions.

5.3 Summary

This chapter has discussed reduced embedded questions with multiple remnants in MC. Cases of reduced questions with single-pair interpretation have been discussed in the previous literature (Wei 2004; Adams and Tomioka 2012; Li and Wei 2017). The relevant cases can be accounted for by the multi-clausal analysis involving multiple conjoined pseudo-sluiced clauses. Further, this chapter has examined cases of reduced questions with pair-list interpretation. Those cases show different properties from cases with single-pair interpretation. For example, cases with pair-list readings adhere to the clause-mate condition, while cases with single-pair readings do not. I have shown that cases with pair-list readings cannot be explained by the multi-clausal analysis. Rather, they can be explicated by a single-clausal analysis. I argue that reduced questions with pair-list interpretation can be explained by movement of *wh*-phrases followed by IP deletion (Abels and Dayal 2022). In a word, I argue for a hybrid analysis to explain reduced embedded questions with multiple remnants in MC.

Chapter 6 Conclusion

This dissertation has aimed to examine reduced embedded questions in three *wh*-in-situ languages, namely, Chakhar Mongolian, Uyghur, and Mandarin Chinese, and to account for their properties within the framework of generative syntax. To achieve this goal, the following research questions have been set up in chapter 1:

(1) a. Are there reduced embedded questions with multiple remnant *wh*-phrases in the three *wh*-in-situ languages, namely, Chakhar Mongolian, Uyghur, and Mandarin Chinese?

b. If yes, what properties do they have?

c. Can they be analyzed in a unitary manner?

d. If there are differences, how can the differences be explained?

To address the research questions, chapter 2 has provided an overview of the properties of the four types of sluicing: embedded single sluicing, embedded multiple sluicing, matrix single sluicing, and matrix multiple sluicing. Chapter 2 has also included theoretical analyses that have been proposed to explain sluicing constructions cross-linguistically. Chapter 2 has laid a foundation for explaining the relevant constructions in Chakhar Mongolian (CM), Uyghur, and Mandarin Chinese (MC).

Chapter 3 has studied reduced embedded single *wh*-questions and reduced embedded questions with multiple *wh*-phrases (RQMW) in CM. Let us first look at reduced embedded single *wh*-questions, as shown in (2).

(2) a. Batu-Ø nige xümün-dü ene nom-i xürge-be,
Batu-NOM one person-DAT this book-ACC give-PST
'Batu gave this book to a person,'

b. gebečü bi-Ø [xen]-i ni mede-xü ügei.
but I-NOM who-ACC PPC know-INF not
'but I don't know who.'

c. gebečü bi-Ø [xen bol-χu]-yi ni mede-xü ügei.
but I-NOM who COP-INF-ACC PPC know-INF not
'but I don't know who.'

d. 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.'

The sentence in (2a) antecedes the reduced embedded questions in (2b-d), indicated with brackets. The reduced question in (2b) contains the *wh*-remnant, *xen* 'who,' which can be optionally followed by the copula *bol*, as shown in (2c). Moreover, the *wh*-remnant can be accompanied by a case marker. In (2d), the remnant is assigned dative case, matching that of its correlate in (2a), *nige xümün-dü* 'one person-DAT.' The reduced questions are followed by the accusative marker, which is assigned to the embedded clauses by the matrix predicate *mede* 'know.'

The properties of the reduced questions, such as the appearance of the copula and the case-marked remnants, open up the possibility that reduced single questions in CM can be derived from different sources. Chapter 3 has shown that they can be derived from pseudo-sluiced clauses, pseudo-cleft sentences, or cleft sentences. Now let us consider the three lines of

analyses of the reduced questions in (2b-d). First, the pseudo-sluicing analysis is shown in (3) below.

(3) The pseudo-sluicing analysis

a. gebečü bi-Ø [xen (bol-χu)]-yi ni mede-xü ügei.
but I-NOM who COP-INF-ACC PPC know-INF not
'but I don't know who.'

b. gebečü bi-Ø [*pro* xen (bol-χu)]-yi ni mede-xü ügei
but I-NOM he who COP-INF-ACC PPC know-INF not
'but I don't know who (he) was'

c. gebečü bi-Ø [tere ni xen (bol-χu)]-yi (ni) mede-xü ügei.
but I-NOM he PPC who COP-INF-ACC PPC know-INF not
'but I don't know who he was.'

In line with the pseudo-sluicing analysis, the reduced question in (3a), which is anteceded by (2a), is analyzed as (3b) consisting of an empty pronominal subject, the *wh*-phrase, and the optional copula. As predicted by the pseudo-sluicing analysis, the empty pronoun can alternate with an overt pronoun, as shown in (3c). (3c) is a natural follow-up to the antecedent sentence in (2a).

Then let us look at the reduced pseudo-cleft analysis in (4).

(4) The reduced pseudo-cleft analysis

a. gebečü bi-Ø [xen bol-χu]-yi ni mede-xü ügei.
but I-NOM who COP-INF-ACC PPC know-INF not

‘but I don’t know who.’

b. gebečü bi-Ø [[Batu-yin ene nom-i xürge-gsen] ni xen
but I-NOM Batu-GEN this book-ACC give-PERF.ADN PPC who
bol-χu]-yi (ni) mede-xü ügei.
COP-INF-ACC PPC know-INF not
‘but I don’t know who the person Batu gave this book to was.’

c. gebečü bi-Ø [[Batu-yin ene nom-i xürge-gsen] ni xen
but I-NOM Batu-GEN this book-ACC give-PERF.ADN PPC who
bol-χu]-yi (ni) mede-xü ügei
COP-INF-ACC PPC know-INF not

The reduced question in (4a) and the full-fledged pseudo-cleft sentence in (4b) take (2a) as their antecedent. In the embedded pseudo-cleft sentence, the free relative clause, which expresses the presupposition, is marked by the PPC *ni*. The free relative clause functions as the subject of the embedded clause in (4b). When the clausal subject is elided as indicated with grey shading in (4c), the reduced question in (4a) is derived. Ellipsis of the clausal subject is allowed in CM since the language independently allows subject ellipsis.

Next, let us consider the reduced cleft analysis in (5).

(5) The reduced cleft analysis

a. 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.’

b. gebečü bi-Ø [[Batu-yin ene nom-i xürge-gsen] ni xen-dü
but I-NOM Batu-GEN this book-ACC give-PERF.ADN PPC who-DAT
bol-χu]-yi (ni) mede-xü ügei.
COP-INF-ACC PPC know-INF not
'but I don't know to whom it was that Batu gave this book.'

c. gebečü bi-Ø [[Batu-yin ene nom-i xürge-gsen] ni xen-dü
but I-NOM Batu-GEN this book-ACC give-PERF.ADN PPC who-DAT
bol-χu]-yi (ni) mede-xü ügei
COP-INF-ACC PPC know-INF not

The reduced question in (5a) with the dative-marked remnant and the full-fledged embedded cleft sentence in (5b) are anteceded by (2a). In the cleft sentence in (5b), the presuppositional clause marked by the PPC *ni* functions as the subject of the embedded clause. Applying subject ellipsis to (5b), indicated with grey shading in (5c), we obtain the reduced question. According to my study, reduced embedded single questions in CM need all three analyses because they have different empirical coverage. For example, cases of reduced questions, in which the remnants are not case-marked, can be explained by the pseudo-sluicing analysis or the reduced pseudo-cleft analysis but not the reduced cleft analysis. Conversely, cases of reduced questions with case-marked remnants can only be explicated by the reduced cleft analysis.

Now let us turn to reduced embedded questions with multiple remnants in CM. RQMW exhibit the case-matching effect and adhere to the clause-mate condition. I have argued that RQMW can be analyzed in terms of the reduced cleft analysis. See (6) for an illustration.

(6) a. Batu-Ø nige γaǰar-ača nige xümün-dü beleg-Ø ilege-be,
Batu-NOM one place-ABL one person-DAT present-ACC send-PST
'Batu sent a present to a person from a place,'

b. gebečü bi-Ø [χamiγa-ača xen-dü bol-χu]-yi ni mede-xü ügei.
but I-NOM where-ABL who-DAT COP-INF-ACC PPC know-INF not
'lit. but I don't know to whom from where.'

c. gebečü bi-Ø [[Batu-yin beleg-Ø ilege-gsen] ni χamiγa-ača
but I-NOM Batu-GEN present-ACC send-PERF.ADN PPC where-ABL
xen-dü bol-χu]-yi (ni) mede-xü ügei.
who-DAT COP-INF-ACC PPC know-INF not
'lit. but I don't know to whom from where it was that Batu sent a present.'

d. gebečü bi-Ø [[Batu-yin beleg-Ø ilege-gsen] ni χamiγa-ača
but I-NOM Batu-GEN present-ACC send-PERF.ADN PPC where-ABL
xen-dü bol-χu]-yi (ni) mede-xü ügei
who-DAT COP-INF-ACC PPC know-INF not

The sentence in (6a) functions to antecede the reduced question in (6b) with two case-marked remnants and the embedded multiple cleft sentence in (6c) with two case-marked pivots. Applying subject ellipsis to (6c), as shown in (6d), we can obtain the reduced question in (6b). RQMW can be derived from multiple cleft sentences because multiple cleft sentences in CM show parallel properties with RQMW. For example, the multiple cleft construction and RQMW both adhere to the clause-mate condition. Additionally, I have argued that RQMW cannot be analyzed in terms of the pseudo-sluicing analysis or the reduced pseudo-cleft analysis.

In sum, reduced single *wh*-questions and reduced questions with multiple *wh*-phrases in CM cannot be analyzed in a unitary manner. The differences are caused by their exhibiting divergent properties. For instance, case markers accompanying remnants are optional in reduced single questions but obligatory in reduced questions with multiple remnants. Thus, different strategies are necessary to account for reduced embedded questions in CM.

Chapter 4 has investigated reduced embedded single *wh*-questions and reduced embedded questions with multiple *wh*-phrases in Uyghur. Let us first look at reduced single questions, as shown in (7).

(7) a. Murat-Ø biraw-ğa nurğun pul bär-di-Ø,
Murat-NOM someone-DAT a.lot money give-PST-3SG
'Murat gave someone a lot of money,'

b. meniŋ [kim(-*gä) lik]-i-ni bil-gü-m bar.
1SG.GEN who-DAT COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who.'

c. meniŋ [kim(-*gä) ikän lik]-i-ni bil-gü-m bar.
1SG.GEN who-DAT COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who.'

The sentence in (7a) is the antecedent of the reduced questions in (7b-c). The reduced question in (7b) contains a *wh*-remnant and the complementizer *lik*. The reduced question allows the optional presence of the copula *ikän*, as in (7c). Crucially, the remnant *wh*-phrases in truncated single questions in Uyghur cannot be case-marked, which is different from reduced single questions in CM because the remnants can be accompanied by case markers in CM.

I have argued that reduced single questions in Uyghur can be analyzed in terms of the pseudo-sluicing analysis or the reduced cleft analysis. Let us first look at the pseudo-sluicing analysis of the reduced questions in (7), as illustrated in (8).

(8) The pseudo-sluicing analysis

a. meniŋ [kim (ikän) lik]-i-ni bil-gü-m bar.
1SG.GEN who COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who.'

b. meniŋ [*pro* kim (ikän) lik]-i-ni bil-gü-m bar
1SG.GEN 3SG who COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who (he) was'

c. meniŋ [u-niŋ kim (ikän) lik]-i-ni bil-gü-m
1SG.GEN 3SG-GEN who COP COMP-3SG.POSS-ACC know-DES.NOML-1SG
bar.
have
'I want to know who he was.'

The reduced question in (8a), which is anteceded by (7a), contains the *wh*-remnant, the optional copula, and the complementizer. In line with the pseudo-sluicing analysis, the reduced question is analyzed as (8b) containing an empty pronominal subject. As predicted by the pseudo-sluicing analysis, the empty pronoun can be spelled out, as shown in (8c).

Next, let us look at the reduced cleft analysis, as in (9).

(9) The reduced cleft analysis

a. meniŋ [kim (ikän) lik]-i-ni bil-gü-m bar.
1SG.GEN who COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know who.'

b. meniŋ [[u-niŋ nurğun pul bär-gän-i]-niŋ kim(-*gä)
1SG.GEN 3SG-GEN a.lot money give-PERF.ADN-3SG.POSS-GEN who-DAT
(ikän) lik]-i-ni bil-gü-m bar.
COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have
'I want to know to whom it was that he gave a lot of money.'

c. meniŋ [[u-niŋ nurğun pul bär-gän-i]-niŋ kim(-*gä)
1SG.GEN 3SG-GEN a.lot money give-PERF.ADN-3SG.POSS-GEN who-DAT
(ikän) lik]-i-ni bil-gü-m bar
COP COMP-3SG.POSS-ACC know-DES.NOML-1SG have

The reduced question in (9a), which is anteceded by (7a), can be derived from the embedded cleft sentence in (9b). The embedded cleft sentence includes a presuppositional clause, a *wh*-pivot, a copula, and a COMP. The presuppositional clause is marked genitive, just like a subject is marked genitive in a non-finite complement clause in Uyghur. When the genitive-marked presuppositional clause is elided, indicated with grey shading in (9c), the resulting structure is identical to the reduced question in (9a). Ellipsis of the presuppositional clause, which serves as the subject of the embedded clause, is independently allowed in Uyghur, as discussed in chapter 4. My study shows that the pseudo-sluicing analysis and the reduced cleft analysis are both needed in order to fully explain reduced embedded single questions in Uyghur. The reason is that the two analyses have different empirical coverage. For example, the availability of sloppy interpretation can be explained by the reduced cleft analysis but not the pseudo-sluicing

analysis. On the other hand, the presence of adjunct *wh*-remnants in reduced questions can be explained by the pseudo-sluicing analysis but not the reduced cleft analysis because the cleft construction in Uyghur does not allow adjunct phrases as pivots.

Now let us turn to reduced embedded questions with multiple remnants in Uyghur. Cases with multiple remnants show two major differences from those with single remnants in Uyghur. First, remnants in RQMW must be case-marked, while remnants in truncated single questions cannot be case-marked. Second, while the presence of the copula is optional in truncated single questions, its presence is not optional in cases with multiple remnants. See the example in (10) below.

(10) a. Biz-niŋ matematika muällim-imiz bir oquğuči-ni bir sinip-qa
1PL-GEN math teacher-1PL.POSS one student-ACC one classroom-DAT
kir-güz-di-Ø,
enter-CAUS-PST-3SG
'The math teacher of our class let a student enter a classroom,'

b.?? lekin män-Ø [kim-ni qaysi sinip-qa liq]-i-ni
but 1SG-NOM who-ACC which classroom-DAT COMP-3SG.POSS-ACC
bil-mä-y-män.
know-NEG-NPST-1SG
'lit. but I don't know whom which classroom.'

c.? lekin män-Ø [kim-ni qaysi sinip-qa ikän lik]-i-ni
but 1SG-NOM who-ACC which classroom-DAT COP COMP-3SG.POSS-ACC
bil-mä-y-män.
know-NEG-NPST-1SG

‘lit. but I don’t know whom which classroom.’

The sentence in (10a) functions as the antecedent for the reduced questions in (10b-c). (10a) is a causative construction, where the causee, *bir oquğuči* ‘one student,’ is marked accusative, and the internal argument of the predicate, *bir sinip* ‘one classroom,’ is marked dative. Correspondingly, the cases of the *wh*-remnants match those of their respective correlates. That is, in (10b-c), *kim* ‘who’ is assigned accusative case, and *qaysi sinip* ‘which classroom’ is assigned dative case. Importantly, case-marking on the *wh*-remnants is obligatory. If one of the remnants or both are not case-marked, the relevant reduced questions are not acceptable. Furthermore, the reduced question in (10b), which contains two case-marked remnants and the COMP, is somewhat degraded. When the copula *ikän* appears, the reduced question is more acceptable, as in (10c).

As discussed in chapter 4, the cleft construction in Uyghur allows neither case-marked pivots nor multiple pivots; therefore, cases with multiple remnants cannot be derived from cleft sentences. Also, cases with multiple remnants cannot be explicated by the pseudo-sluicing analysis. Taking the properties of RQMW into account, I have argued that RQMW in Uyghur can be explained by an in-situ analysis, as illustrated in (11).

(11) a. lekin män-Ø [$_{\text{ForceP}}$[$_{\text{FocP}}$[$_{\text{FinP}}$ u-niŋ kim-ni qaysi sinip-qa
but 1SG-NOM 3SG-GEN who-ACC which classroom-DAT
kir-güz-gän] ikän$_{\text{Foc}}$] lik$_{\text{Force}}$]-i-ni bil-mä-y-män.
enter-CAUS-PERF.NOML COP COMP-3SG.POSS-ACC know-NEG-NPST-1SG
‘lit. but I don’t know it was that he let whom enter which classroom.’

b. lekin män-Ø [$_{ForceP}$ [$_{FocP}$ [$_{FinP}$ u-niŋ kim-ni qaysi sinip-qa
but 1SG-NOM 3SG-GEN who-ACC which classroom-DAT
kir-güz-gän] ikän$_{Foc}$] lik$_{Force}$]-i-ni bil-mä-y-män
enter-CAUS-PERF.NOML COP COMP-3SG.POSS-ACC know-NEG-NPST-1SG

The sentence in (11a) is anteceded by (10a). (11a) is an in-situ focus sentence, headed by *ikän*, which functions as a focus marker. Now let us apply nonconstituent deletion to (11a), indicated with grey shading in (11b); we obtain the reduced question in (10c). Note that the deletion does not affect the copula since it functions as the Foc head. One of the advantages of the in-situ analysis is that it explains the presence of the copula in reduced questions with multiple remnants. Moreover, this analysis straightforwardly accounts for the case-matching effect observed in RQMW since the *wh*-phrases in the in-situ focus sentences are case-marked. In brief, reduced embedded single *wh*-questions and reduced questions with multiple *wh*-phrases in Uyghur cannot be analyzed in a unitary manner because they have divergent properties. Thus, different strategies are necessary to account for reduced embedded questions in Uyghur.

Chapter 5 has focused on reduced embedded questions with multiple remnants in MC. RQMW with single-pair interpretation have been studied in the previous literature (e.g., Wei 2004; Adams and Tomioka 2012). See the example (12) below.

(12) a. Mouren mai-le yi-yang dongxi,
someone buy-ASP one-CL thing
'Someone bought a thing,'
b. danshi wo bu zhidao [na-ge ren na-yang dongxi].
but I not know which-CL person which-CL thing

'lit. but I don't know which person which thing.'

(cited from Wang and Han 2018: 611)

c. danshi wo bu zhidao [(shi) na-ge ren (shi) na-yang dongxi].
but I not know COP which-CL person COP which-CL thing
'lit. but I don't know which person which thing.'

d. danshi wo bu zhidao [(shi) na-ge ren (yiji) (shi) na-yang
but I not know COP which-CL person and COP which-CL
dongxi].
thing
'but I don't know which person and which thing.'

The sentence in (12a) antecedes the reduced questions in (12b-d). In (12a), the correlates of the two *wh*-remnants are *mouren* 'someone' and *yi-yang dongxi* 'one-CL thing,' which are existential quantifiers denoting the existence of a person or a thing. Cases of reduced questions like (12) have single-pair readings since they are answered with a single pair of a person and an item, like *John bought a book*. In the reduced question, the copula *shi* can appear in front of the remnants, as in (12c). Moreover, the coordinating conjunction *yiji* is allowed to appear, as shown in (12d).

According to the previous literature (e.g., Wei 2004; Adams and Tomioka 2012; Li and Wei 2017), cases of reduced questions with single-pair interpretation in MC can be explained by a multi-clausal analysis, i.e., multiple pseudo-sluiced clauses conjoined. See (13) for an illustration.

(13) a. danshi wo bu zhidao [[*pro* (shi) na-ge ren] (yiji) [*pro* (shi)
but I not know he COP which-CL person and it COP
na-yang dongxi]]
which-CL thing
'but I don't know which person (he) was and which thing (it) was'

b. danshi wo bu zhidao [[ta shi na-ge ren] yiji [ta shi
but I not know he COP which-CL person and it COP
na-yang dongxi]].
which-CL thing
'but I don't know which person he was and which thing it was.'

In line with the pseudo-sluicing analysis, the reduced question contains two pseudo-sluiced clauses, each of which contains a null pronominal subject, as in (13a). Furthermore, the null subjects can be spelled out, as shown in (13b). The multi-clausal analysis can account for the observed properties of reduced questions with single-pair interpretation. For instance, it can explain the observation that an overt conjunction is allowed to appear. The reduced questions in (12) involve multiple pseudo-sluiced clauses conjoined by *yiji*, which is able to conjoin two CPs. Further, the property that reduced questions with single-pair interpretation do not adhere to the clause-mate condition (Adams and Tomioka 2012) can be captured by the multi-clausal analysis. Since the reduced question involves two independent clauses, each of which has a pronominal subject, it follows that the clause-mate effect is not observed.

Since the previous literature has discussed cases of RQMW with single-pair interpretation, I have focused on cases of RQMW with pair-list interpretation, as shown in (14).

(14) Context: There were three researchers, John, Lili, and Mary, each of whom had an adventure at a different place. Lisi and I were aware of this situation. I said to Lisi:

a. Mei-ge yanjiuzhe ge zai yi-ge difang tan-guo-xian,
every-CL researcher each at one-CL place adventure-ASP
'Every researcher had an adventure at a (different) place,'

b.? wo xiang zhidao [(shi) na-ge yanjiuzhe zai na-ge difang].
I want know FOC which-CL researcher at which-CL place
'I want to know which researcher at which place.'

In (14a), which is intended to antecede (14b), the first correlate is a universal quantifier, and the second correlate is an existential quantifier. The universal quantifier in the subject position takes wider scope than the existential quantifier. The reduced question can be answered pairwise, like *John had an adventure in a rainforest, Lili had an adventure in a desert, and Mary had an adventure in an underwater cave.* This is the pair-list interpretation.

I have argued that cases with pair-list interpretation cannot be explicated by the multi-clausal analysis but by a single-clausal analysis. Specifically, I follow Abels and Dayal's (2022) movement-and-deletion proposal. See (15) for an illustration.

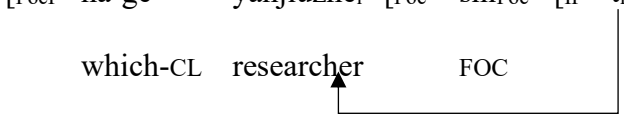
(15) a. [$_{FocP}$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ na-ge yanjiuzhe zai na-ge difang
FOC which-CL researcher at which-CL place
tan-guo-xian]]]
adventure-ASP
'which researcher had an adventure at which place'

b. [$_{FocP}$ na-ge yanjiuzhe$_i$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ t$_i$ zai na-ge difang

which-CL researcher FOC at which-CL place

tan-guo-xian]]]

adventure-ASP

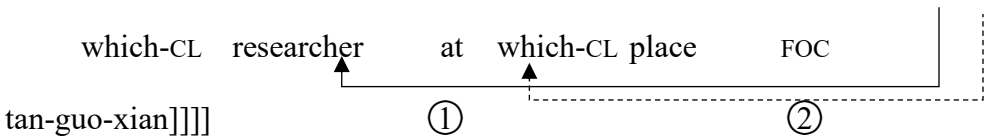


c. [$_{FocP}$ na-ge yanjiuzhe$_i$ [$_{Foc'}$ zai na-ge difang$_j$ [$_{Foc'}$ shi$_{Foc}$ [$_{IP}$ t$_i$ t$_j$

which-CL researcher at which-CL place FOC

tan-guo-xian]]]]

adventure-ASP



d. [$_{FP}$ shi$_k$ [$_{FocP}$ na-ge yanjiuzhe$_i$ [$_{Foc'}$ zai na-ge difang$_j$ [$_{Foc'}$ t$_{kFoc}$

FOC which-CL researcher at which-CL place

[$_{IP}$ t$_i$ t$_j$ tan-guo-xian]]]]]

adventure-ASP

e. [$_{FP}$ shi$_k$ [$_{FocP}$ na-ge yanjiuzhe$_i$ [$_{Foc'}$ zai na-ge difang$_j$ [$_{Foc'}$ t$_{kFoc}$

FOC which-CL researcher at which-CL place

[$_{IP}$ t$_i$ t$_j$ tan-guo-xian]]]]]

adventure-ASP

The reduced question in (14b) is derived from the multiple *wh*-question in (15a) containing the focus marker *shi*. Following Abels and Dayal (2022), first, the subject *wh*-phrase undergoes overt movement to the specifier position of FocP, as illustrated in (15b). Note that overt focus movement of *wh*-phrases is independently allowed in MC (e.g., Hoh and Chiang 1990; Cheung 2014; Song 2016). Next, the second *wh*-phrase undergoes covert phrasal movement to the lower specifier position of FocP, as shown by the dashed arrow in (15c). Subsequently, *shi* is moved to the head of a higher functional projection to c-command the fronted *wh*-phrases (Cheung

2014), as shown in (15d). Lastly, IP deletion is applied to the structure, indicated with grey shading in (15e); the reduced question in (14b) is thereby derived. According to the chain reduction algorithm (e.g., Gärtner 2002; Nunes 2004; Johnson 2012), the higher copy is pronounced in the case of overt movement, while the lower copy is pronounced in the case of covert movement. After IP ellipsis is applied, the higher copy of the second *wh*-phrase is actually the lowest copy. Accordingly, the higher copy in the covert movement is made overt in reduced questions (Abels and Dayal 2022). The single-clausal analysis can explain the observed properties of reduced questions with pair-list interpretation. For example, RQMW with pair-list interpretation adheres to the clause-mate condition (Bai and Takahashi 2023b), which is compatible with Abel and Dayal's (2022) assumption that covert *wh*-movement is clause-bounded. Accordingly, a *wh*-phrase from an embedded clause cannot undergo covert movement to the same FocP as a *wh*-phrase from a matrix clause.

In short, my study has shown that reduced questions with single-pair interpretation exhibit different properties from those with pair-list interpretation. First, the presence of the conjunction is allowed in the former cases but is infelicitous in the latter cases. Then, the former cases do not adhere to the clause-mate condition, but the latter cases do. Lastly, *shi*, as a copula, is allowed to appear in front of each remnant in the former cases. In contrast, the presence of *shi* as a focus marker in front of the second remnant phrase in the latter cases lowers the acceptability ratings, as reported in Bai, Cortés Rodríguez, and Takahashi 2023. Based on the differences, I have argued that reduced embedded questions in MC should be explained by a hybrid analysis: the multi-clausal analysis combined with the single-clausal analysis.

To conclude, I have provided the following answers to the research questions shown in (1):

(16) a. There are reduced embedded questions with multiple remnant *wh*-phrases in the three *wh*-in-situ languages, namely, Chakhar Mongolian, Uyghur, and Mandarin Chinese.

b. The reduced questions exhibit different properties in the three languages.

c. The reduced questions cannot be analyzed in a unitary manner.

d. The differences are caused by language-specific properties.

This dissertation has investigated reduced embedded questions in three *wh*-in-situ languages. It can be seen that different languages employ distinct strategies to derive reduced embedded questions. Even within a single language, varied analyses are necessary to fully account for the observed properties of reduced questions. To recapitulate, while RQMW in CM can be analyzed in terms of the reduced cleft analysis, reduced single questions in the language are explained by the pseudo-sluicing analysis, the reduced pseudo-cleft analysis, or the reduced cleft analysis. In Uyghur, reduced single questions in the language can be explained by the pseudo-sluicing analysis or the reduced cleft analysis. Neither analysis can explicate RQMW in Uyghur. Rather, cases with multiple remnants are analyzed in terms of an in-situ analysis. Lastly, reduced single questions and RQMW in MC can be explicated by a hybrid analysis: the pseudo-sluicing analysis combined with a movement-and-deletion analysis. These differences are attributed to language-specific properties. For instance, in languages like Japanese and Mongolian, their cleft constructions allow the presence of multiple pivots, making the cleft constructions possible sources of RQMW in those languages. However, in languages like English and Uyghur, their cleft constructions do not allow the appearance of multiple pivots, which makes it challenging to analyze RQMW in terms of the reduced cleft analysis. Although the cleft constructions can account for reduced questions in CM and reduced single questions in Uyghur, the cleft

construction in MC cannot explain reduced questions in the language because the cleft construction in MC exhibits properties different from reduced questions in the language. Hence, the cleft construction has been ruled out as a source of reduced questions in MC.

This study has shown that the cleft construction has been argued as a source of reduced embedded questions in some *wh*-in-situ languages such as Japanese (Saito 2004; Hiraiwa and Ishihara 2012), Uzbek (Gribanova 2013), Mongolian, and Uyghur. Since this study initiates research on the cleft constructions in Uyghur and CM, many aspects of these constructions in the two languages remain uninvestigated. Future studies on the derivational processes of the cleft constructions can provide further insights into explaining the differences in reduced questions. I hope that this dissertation has laid a foundation for further research on sluicing in CM, Uyghur, and MC and has contributed to the study on ellipsis in general.

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