## SYNTACTIC ISLANDS IN UYGHUR

by

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## **Travis Major**

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Chairperson Prof. William H. Torrence

Prof. Arienne Dwyer

Prof. Jason Kandybowicz

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The Thesis Committee for Travis Major certifies that this is the approved version of the following thesis:

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Chairperson William Torrence

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## Abstract

In this thesis, I investigate the status of syntactic islands in Uyghur, a Turkic language spoken primarily in the Xinjiang Autonomous Region in the People's Republic of China. Syntactic islands are constructions originally observed by Ross (1967), from which syntactic elements may not be extracted. The literature has demonstrated interesting asymmetries between languages that display wh-movement and languages that do not. Uyghur is canonically a wh-in-situ language, but also allows movement via scrambling. This thesis outlines Uyghur's sensitivity to three different types of syntactic islands: the Complex Noun Phrase Constraint, wh-islands, and the Coordinate Structure Constraint, as well as crossover effects. I ultimately show that Uyghur exhibits asymmetries between wh-in-situ and wh-movement with regard to island sensitivity. Moreover, I provide evidence that Uyghur fits in with much of the wh-in-situ literature regarding island sensitivity with a couple minor exceptions. I also provide novel descriptive data and contribute one of few studies on Uyghur within the generative framework.

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## Abbreviations

1	1 <sup>st</sup> person
2	2 <sup>nd</sup> person
3	3 <sup>rd</sup> person
ABL	ablative case
ACC	accusative case
ATB	Across the Board Movement
AUX	auxiliary
CAUS	causative
CNPC	Complex Noun Phrase Constraint
CSC	Coordinate Structure Constraint
COMP	complementizer
DAT	dative case
DUR	durative
PST	directly known past tense
DP	Determiner Phrase
F	formal
GEN	genitive case
GER	gerund
IMP	imperative
IN	informal
LIQ	nominalizer/complementizer
LOC	locative case
NEG	negative
NON.PST	non-past tense
NP	noun phrase
PART	participle
PL	plural
POSS	possessive
SCO	Strong Crossover
SG	singular
TP	tense phrase
VP	verb phrase
WCO	Weak Crossover

## 1. Introduction

In this thesis, I provide a survey of island effects in Modern Standard Uyghur (ISO 639-3: uig)<sup>1</sup>, consisting of complex noun phrases, wh-islands, coordinate structures, and crossover effects. This investigation includes restrictions on scrambling out of islands and covert movement at Logical Form (LF). Inherent asymmetries between types of embedded clauses, wh-questions, and conjuncts in Uyghur provide a fruitful testing ground for theories of island effects.

The concept of syntactic islands was devised by Ross (1967). Syntactic movement (such as wh-movement) is barred from certain constructions, such as: complex DPs, wh- complements, adjuncts, and coordinate structures. This ban on movement is cross-linguistically robust, and the constructions that block moved were coined 'islands' by Ross. This is illustrated in (1) and (2) below:

- (1) a. Phineas knows a girl who is jealous of Maxime.
  b.\*Who does Phineas know a girl who is jealous of \_\_? (Ross 1967: 124)
- (2) a. He will put the chair between some table and the sofa.
  b.\*What sofa will he put the chair between some table and \_\_?
  c.\*What table will he put the chair between \_\_ and some sofa?
  (Ross 1967: 158)

The example in ((1)b) shows that wh-movement out of a complex noun phrase is not permitted, while (2a-b) demonstrate that wh-movement out of an individual conjunct is also banned.

<sup>&</sup>lt;sup>1</sup> The data in this thesis was collected through elicitation sessions (conducted primarily in English) at the University of Kansas from two native speakers of Uyghur. The data are not representative of natural, conversational Uyghur, but rather grammaticality judgments based on native speaker intuitions. Both speakers are adult females and also students at the University of Kansas. Furthermore, both speak Mandarin Chinese and English as second languages.

Constructions such as those shown in ((1)-(2)), where movement is blocked out of certain domains are the primary focus of this thesis.

Some examples of the Uyghur structures investigated throughout this paper, beginning with complex noun phrases, are shown in (3)-(4) below:

- (3) a. Men [[u-ni ur-ghan] adem-ni] kör-d-üm. Relative Clause 1SG 3SG-ACC hit-PST.PART person-ACC see-PST-1SG 'I saw the man who hit him/her.'
  - b.\*U-ni<sub>i</sub> men [ [<sub>CP</sub> t<sub>i</sub> ur-ghan] adem-ni ] kör-d-üm. RC Extraction 3SG-ACC 1SG hit-PST.PART person-ACC see-PST-1SG 'Intended: I saw the man who hit him/her.'

((3)a) shows a basic transitive relative clause. In ((3)b), I demonstrate that extraction (scrambling) from complex DPs such as relative clauses is barred (presumably because of the Complex Noun Phrase Constraint (CNPC)).

I then address the status of wh-island sensitivity observed in Uyghur, as shown in (4) below:

- (4) a. U [siz-ning néme-ni yé-gen-liq-ing-ni] angli-di? 3SG 2SG-GEN what-ACC eat-PST.PART-LIQ-2SG.POSS-ACC hear-PST-3SG 'What did s/he hear that you ate?'
  - b. U [kim-ning néme-ni yé-gen-liq-i-ni ] angli-d-i
    3SG who-GEN what-ACC eat-PST-LIQ-3SG.POSS-ACC hear-PST-3SG
    i. 'Which x: s/he heard who ate x?'
    ii. 'Which person x: s/he heard what x ate?'

The examples in (4) demonstrate that in embedded multiple-wh constructions, Uyghur allows multiple options with regard to the scope of wh-expressions. These types of examples tie in with the literature on wh-islands, especially with regard to wh-in-situ languages. I ultimately show that Uyghur displays many of the same characteristics as other wh-in-situ languages with some subtle differences.

This thesis contributes to the linguistic literature in several ways. Descriptively, this thesis is the first detailed study within the generative framework, to my knowledge, of wh-interrogative constructions, double question constructions, and distribution of coordinate structures in Uyghur. This thesis is also the first study of island phenomena in Uyghur and one of the few investigations of islands in Turkic languages. Numerous studies have aimed to account for the distributional facts of embedded clauses in Turkish (Kornfilt 2000, 2008; Görgülü 2006). Despite appearing similar on the surface, Uyghur displays some unique characteristics which are worth looking into. This investigation of islands in Uyghur also contributes to the typology of Logical Form cross-linguistically, as many have shown that wh-in-situ languages behave differently than obligatory wh-movement languages. My goal is to situate the Uyghur facts within the greater island literature, as opposed to constructing a new analysis of islands with Uyghur data. Beyond the theoretical underpinnings, this paper also provides novel data in Uyghur that has not been investigated or presented prior, to my knowledge.

In section 2, I provide the relevant descriptive data in Uyghur that is necessary for understanding the discussion of islands to follow. Included in this discussion are both a summary of grammatical properties of Uyghur, along with detailed presentation of novel data specific to the constructions addressed in this thesis.

Section 3 discusses the complex noun phrase constraint (CNPC), wh-islands, and the coordinate structure constraint (CSC) in Uyghur. With regard to the CNPC, I provide evidence that nominalized embedded clauses, non-nominal embedded clauses, and relative clauses (nominal by nature) all pattern differently. Furthermore, scrambling out of complex noun phrases shows different effects than LF movement of wh-expressions. Then I combine scope judgments with various other diagnostics in order to determine wh-island sensitivity in Uyghur. Ultimately, I show that Uyghur displays argument/adjunct asymmetries for wh-islands that patterns similarly to many other wh-in-situ languages in the literature. Section 3.3 discusses the Coordinate

Structure Constraint (CSC). This section provides evidence that Uyghur is sensitive to the CSC with regard to scrambling, but not in the case of LF movement in wh-questions. Section 3.4 focuses on crossover effects. Crossover effects are of interest because Uyghur is wh-in-situ with very flexible word order. This opens up the opportunity to test both overt and covert movement. I provide evidence that Uyghur does display crossover effects.

## 2. Methods and Language Background

This section provides the methodology used for data collection, a brief general background of Uyghur, and a summary of all the structures necessary to follow the discussion of islands in the remaining sections of this thesis. I outline the asymmetries found within multiple structures (embedded clauses, wh-clauses, and conjunctions), which prove critical during my investigation of island effects. This section not only provides a foundation for the discussion of islands, but also contains numerous cases of novel data not currently found in the literature (to my knowledge).

#### 2.1 Methodology

The data for this thesis was collected through grammatical elicitation with two female adult native speakers of Uyghur. Elicitations were composed of translational elicitation where my consultants were asked to translate English sentences into Uyghur, grammaticality judgments based on sentences that I constructed, and truth condition judgments. By virtue of the topic investigated in this thesis, some constructions may seem pragmatically strange and do not reflect natural spoken Uyghur. The data is based on the intuitions of my native speaker consultants during elicitation, and is not a collection of naturalistic, conversational data.

#### 2.2 Uyghur Background

Uyghur (ISO 639-3: uig) is spoken mainly in the Xinjiang Uyghur Autonomous Region in the People's Republic of China, but also in neighboring regions (e.g. Kazakhstan and Kyrgyzstan). Uyghur is a southeastern Turkic language, spoken by roughly 10 million speakers. It is most typologically similar to modern Uzbek (Engesæth et. al 2009/2010).

Uyghur has been written in numerous orthographies throughout time (for more information see Dwyer 2005), but is currently most commonly written in a modified Perso-Arabic-based script. A standardized Latin-based Uyghur orthography was established for transliteration (Engesæth et. al 2009/2010), which is used for the transcriptions in this thesis. This orthography closely resembles the orthographic system of English, with the exception of the following sounds:  $\langle e \rangle$ ,  $\langle e \rangle$ ,  $\langle zh \rangle$  and  $\langle gh \rangle$  correspond to [e], [ $\epsilon$ ], [3] and [ $\gamma$ ] respectively.

Uyghur also exhibits vowel and consonant harmony. Capital letters are used throughout this thesis to represent harmonic variants. For example 'G' corresponds to [k, g, q,  $\gamma$ ], 'A' to [a,e], and 'I' to [i,u, ü]. As a result of harmonic processes, numerous allomorphs surface in the data to follow.

Uyghur is a synthetic, agglutinating language with a rich case/agreement system. The remainder of this section provides background on the characteristics of Uyghur syntax and morphology that are necessary to follow the remaining discussions in this thesis.

## 2.2.1 Word Order

Uyghur displays canonical SOV word order in neutral contexts. This is true of both matrix and embedded clauses:

S 0 V (5) a. Men polu-ni yé-d-im. pilaf-ACC eat-PST-1SG 1SG 'I ate the pilaf.' V S 0 b. Men [siz-ning polu-ni yé-gen-liq-ingiz-ni] bil-i-men. 1SG 2SG.F-GEN pilaf-ACC eat-PST.PART-LIQ-2SG.F.POSS-ACC know-NON.PST-1SG 'I know that you ate pilaf.'

((5)a) is a neutral transitive sentence, which displays SOV word order. The same order is found inside the embedded clause in ((5)b). Other than rare cases (e.g. quotative inversion), the verb is always final.

#### 2.2.2 Tense

For the purposes of this thesis, I discuss only basic tense distinctions in Uyghur, which

includes past and non-past:

- (6) a. Tursun bazar-gha bar-**d**-i. Tursun bazaar-DAT go-PST-3SG 'Tursun went to the bazaar.'
  - b. Tursun bazar-gha bar-**ghan**. Tursun bazaar-DAT go-PST 'Tursun went to the bazaar.'
  - c. Tursun bazar-gha bar-i-du. Tursun bazaar-DAT go-NON.PST-3SG 'Tursun goes/will go to the bazaar.'

Although there may be slightly different interpretations between ((6)a-b), I have not clearly been able to capture any such distinction. Both are past, but of note here is that -d/t obligatorily shows subject agreement, while -GAn does not. This distinction will not play a role in this thesis, as -

*GAn* will only surface in embedded clauses. The non-past morpheme -i/y can be interpreted as either present or future<sup>2</sup>, so I gloss it as NON.PST in this thesis. This data is summarized in Table 1:

Tense	Marker	Uyghur	English
		Example	Translation
past	- <i>d</i> / <i>t</i>	ket- <b>t</b> -i	'I left'
past	-ghan/gen/qan/ken	ket-ken	'left'
non-past	- <i>i</i> /y	ye- <b>y</b> -men	'I leave' or
			'I will leave'

 Table 1
 Basic Tense Morphemes

## 2.2.3 Case

Uyghur displays a rich case system that consists of six cases. Case markers are incredibly productive and transparent, appearing mostly on NPs<sup>3</sup>. Examples of case-marking are shown in (7):

- (7) a. Men- $\emptyset$  öy-*din* mektep-*ke* bar-d-im. 1SG-NOM home-ABL school-DAT go-PST-1SG 'I went to school from the house.'
  - b. Dost-lar-Ø mén-*ing* qizil orunduq-lir-*im-da* oltur-d-i. friend-PL-NOM 1SG-GEN red chair-PL-1SG.POSS-LOC sit-PST-3SG 'Friends sat on my red chairs.'

All of the examples in (7) show that nominative case is unmarked. ((7)a) shows *-din* (ablative) combined with *öy* 'home' and *-ke* (dative) combined with *mektep* 'school' to denote direction from and direction to. ((7)b) shows genitive-marking on the 1SG pronoun. The locative marker *-ta* is combined with *orunduqlar* 'chairs' to denote the position on the chairs. These markers are quite transparent, but this is not unexpected due to the agglutinative nature of the language.

<sup>&</sup>lt;sup>2</sup> For vowel final stems, -y is the NON.PST marker, but for consonant final stems -i is used.

<sup>&</sup>lt;sup>3</sup> Like most Turkic languages, embedded clauses are often nominalized, with case-markers on the right edge of the embedded clause.

One interesting facet of the Uyghur case system is the function of the accusative case-marker -ni. The object does not need to be obligatorily marked with accusative case. Consider the data in (8):

(8)	a.	Xemit-Ø	toshqan- $\emptyset$	kör-d-i.
		Xemit-NOM	rabbit-ACC	see-PST-3SG
		'Xemit saw a	a rabbit.'	

b. Xemit-Ø toshqan-*ni* kör-d-i. Xemit-NOM rabbit-ACC see-PST-3SG 'Xemit saw the/a specific rabbit.'

Accusative case also encodes specificity when the object occurs in canonical object position. ((8)a) shows that the object *toshqan* 'rabbit' is non-specific without the accusative marker. In ((8)b), when combined with the accusative marker, *toshqanni* refers to a specific rabbit in the discourse.

For an overview of case-markers in the language, see Table 2 below:

Case	Case Marker	Example	Gloss	Meaning
nominative	-Ø	somka-Ø	bag (nom)	subject
accusative	<i>-ni</i> or -Ø	somki- <b>ni</b>	bag (acc)	direct object
dative	-ka/-ke/-gha/-	somki <b>-gha</b>	to the bag	direction (to) /
	ge			indirect object
ablative	-din/-tin	somki <b>-din</b>	from the	direction (from)
			bag	
locative	-da/-ta	somki <b>-da</b>	in/on the	location (in/on)
			bag	
genitive	-ning/-ing	somki- <b>ning</b>	bag's	possessor

Note: from this point forward, unmarked nominative case will not be glossed.

## 2.2.4 Scrambling

Although Uyghur typically displays SOV word order, its rich case system allows for scrambling, which is a process by which syntactic elements appear in non-canonical positions, which I take to be derived by movement following the literature (Bošković & Takahashi 1998; Karimi, 2003; Kayne 1994; Miyagawa 1997). Scrambling greatly increased the number of possible word orders:

(9) a. Men Tursun-(ni) ur-d-um. 1sg Tursun-ACC hit-PST-1sg 'I hit Tursun.'

OSVb. Tursun-\*(ni)menur-d-um.Tursun-ACC1SGhit-PST-1SG'I hit Tursun.''Ihit-PST-1SG

((9)a-b) demonstrate generally how scrambling works in Uyghur. The accusative case-marking is not obligatory in its canonical direct object position ((9)a), but when scrambled to the front of the sentence, it becomes obligatory as shown in ((9)b). The same flexibility is found in ditransitive constructions as long as case marking is present, shown in (10):

(10)a.	Men-Ø	Tursun-*(gha)	kitab-(ni)	ber-d-im.	S IO DO V
	1sg-nom	Tursun-DAT	book-ACC	give-PST-1SG	
	'I gave the	e book to Tursu	ın.'		

b. Men kitab-*(ni) Tursun-*(gha) ber-d-in	n. S DO IO V
c. Tursun-*(gha) men kitab-*(ni) ber-d-in	n. IO S DO V
d. Tursun-*(gha) kitab-*(ni) men ber-d-in	n. IO DO S V
e. Kitab-*(ni) men Tursun-*(gha) ber-d-in	n. DO S IO V
f. Kitab-*(ni) Tursun-gha men ber-d-in	n. DO IO S V
g.*Tursun-gha kitab-ni ber-d-im men.	*IO DO V S
h.*Men kitab-ni ber-d-im Tursun-gha.	*S DO V IO
i. *Men Tursun-gha ber-d-im kitab-ni.	*S IO V DO

All of the cases in ((10)a-i) provide evidence that scrambling allows for all possible <u>verb-final</u> word orders. Scrambling may encode focus depending on the prosody. However, the

grammatical examples in ((10)a-f) show no semantic effect (i.e. truth conditionally equivalent). Finally, scrambling is derived by leftward movement.

## 2.2.5 Agreement

Uyghur exhibits subject agreement using verbal morphology. In finite main clauses, the verb agrees with the subject in person and number. In ((11)a-d), the subject is droppable, because it is recoverable by the agreement that surfaces on the right edge of the verb. A further distinction is evident based on tense, shown by the contrast in ((11)b-c), where the 1PL agreement surfaces as -uq in the past and -(I)miz in the present. As a result of subject agreement, Uyghur is unsurprisingly a pro drop language. Furthermore, when *-Gan* is used in finite clauses, either an over subject or agreement must surface ((11)d):

- (11) a. (*men*) Turpan-ge bar-d-*im*. 1SG Turpan-DAT go-PST-1SG 'I went to Turpan.'
  - b. (*biz*) Turpan-ge bar-d-*uq*. 1PL Turpan-DAT go-PST-1PL 'We went to Turpan.'
  - c. (*biz*) Turpan-ge bar-i-*miz*. 1PL Turpan-DAT go-NON.PST-1PL 'We go/will go to Turpan.'
  - d. (sen) Turpan-ge bar-ghan-(sen). 2SG.IN Turpan-DAT go-PST-2SG.IN 'You went to Turpan.'

Possessors also trigger agreement on possessed nouns:

- (12) a. biz-*ning* dost-\*(*imiz*) 1PL-GEN friend-1PL.POSS 'our friend'
  - b. dost-\*(*imiz*) friend-1PL.POSS 'our friend'

Example ((12)a) shows a full DP possessor (with genitive case) and the possessed noun with 1PL agreement. ((12)b) shows that like subjects in finite clauses, the possessor may be dropped without effecting interpretation.

The agreement data is summarized in Table 3 below:

Person +	Subject	Subject	Genitive
Number	present	past	
1s	-men	-im	-(i)m
1pl	-miz	-uq	-(i)miz
2s	-siz	-ingiz	-(i)ngiz
informal			
2s formal	-sen	-ing	-(i)ng
2pl	-siler	-inglar	-(i)nglar
3s	-du	- <i>i</i>	-(s)i
3pl	-du	- <i>i</i>	-(s)i

Agreement in Uyghur makes person, number, and formality distinctions, but does not encode gender or animacy.

## **2.2.6 WH-Questions**

Uyghur is a wh-in-situ language. Argument WH-expressions demonstrate this very clearly, while adjunct wh-expressions are significantly more flexible. As mentioned above, argument WHquestions are simply formed by placing WH-expressions into their canonical argument positions, shown in (13):

(13)a.	Adil manta-ni Adil dumplings-ACC 'Adil ate dumplings.'	yé-d-i. eat-PST-3SG	
b.	<i>Kim</i> manta-ni who dumplings-ACC 'Who ate dumplings?'	•	Subject WH-question

c. Adil *néme-ni* yé-d-i? Adil what-ACC eat-PST-3SG 'What did Adil eat?'

By comparing ((13)b-c) to the base sentence in ((13)a), it is evident that the wh-expressions surface in the same canonical position as non-wh arguments, as expected for wh-in-situ languages.

Although Uyghur is a WH-in-situ language, it also allows for scrambling of arguments, similar to argument scrambling in declaratives:

- (14) a. *kim* manta-ni yé-d-i? who manta-ACC eat-PST-3SG 'Who ate manta?'
  - b. manta-ni *kim* yé-d-i? Subject WH-Scrambling dumplings-ACC who eat-PST-3SG 'Who ate dumplings?'
  - c. Adil *néme-ni* yé-d-i? Adil what-ACC eat-PST-3SG 'What did Adil eat?'
  - d. *Néme-\*(ni)* Adil yé-d-i? Object WH-Scrambling what-ACC Adil eat-PST-3SG 'What did Adil eat?'

((14)b) provides evidence that the object can be scrambled to the left edge of the clause without changing the interpretation of the sentence, while ((14)d) shows that accusative-marked object wh-expressions may also be scrambled to the left edge of the clause, without (significantly) changing the interpretation of ((14)c).<sup>4</sup>

Adjunct wh-expressions<sup>5</sup> (even without case-marking) demonstrate similar flexibility to arguments, as shown in (15) below:

<sup>&</sup>lt;sup>4</sup> When a wh-object is fronted, it is interpreted as specific or focused. Speakers tend to allow fronting without affecting the interpretation, as well.

<sup>&</sup>lt;sup>5</sup> Uyghur does not have a simple wh-expression to express English 'how'.

- (15) a. Siz tünügün mektep-te polu-ni yé-d-ingiz. 2SG.F yesterday school-LOC pilaf-ACC eat-PST-2SG.F 'You ate pilaf in the school yesterday.'
  - b. *Qachan/nemishqa/nede* siz polu-ni yé-d-ingiz? when/why/where 2SG.F pilaf-ACC eat-PST-2SG.F 'When/why/where did you eat pilaf?'
  - c. Siz *qachan/nemishqa/nede* polu-ni yé-d-ingiz? 2SG.F when/why/where pilaf-ACC eat-PST-2SG.F 'When/why/where did you eat pilaf?'
  - d. Siz polu-ni *qachan/nemishqa/nede* yé-d-ingiz? 2SG.F pilaf-ACC when/why/where eat-PST-2SG.F 'When/why/where did you eat pilaf?'
  - e.\* Siz polu-ni yé-d-ingiz *qachan/nemishqa/nede*? 2SG.F pilaf-ACC eat-PST-2SG.F when/why/where 'When/why/where did you eat pilaf?'

Adjunct WH-expressions may occur in any preverbal position, similar to case-marked argument

WH-expressions. This is demonstrated for qachan 'when', némishqa 'why', and nede 'where' in

((15)a-e). Although many word order possibilities are available, these adjunct wh-expressions

immediately follow the subject in neutral contexts, like ((15)c).

In Table 4 below, I summarize the inventory of wh-expressions in Uyghur:

Table 4. Uyghur Wh-Expressions			
Uyghur WH-expression	English Translation		
néme	'what'		
kim	'who'		
qandaq	'how, what kind'		
qaysi	'which'		
nede	'where' (locative) <sup>6</sup>		
nege	'where' (dative)		
qachan	'when'		
némishqa	'why'		
néme uchun	'why, what for'		

Table 4. Uyghur Wh-Expressions

<sup>&</sup>lt;sup>6</sup> nege can roughly be interpreted as 'to which place'. nede means (roughly) 'in/on which place'.

## 2.3 Embedded Clauses

Uyghur displays numerous strategies for constructing embedded clauses. I divide this section into three different subcategories: nominalized embedded clauses, non-nominalized embedded clauses, and relative clauses. Before discussing these embedded clause types as a whole, the morphology that is critical to embedded clauses must first be dicussed.

The first morpheme needing explanation is *–GAn*, which is realized as *-ghan/gen/qan/ken* depending on the phonological environment. The finite tense marker function was described in section 2.2.2, and is repeated in (16) below:

(16) a. Men uxli-ghan. 1SG sleep-PST 'I slept.'

However, -GAn is multi-functional as it frequently occurs in embedded contexts where it functions as the past participle (henceforth glossed as PST.PART), shown in (17) below:

- (17) a. Ayshe polu ét-ken. Ayshe pilaf make-PST.PART'Ayshe made/had made pilaf.'
  - b. Kishi-lar ular-ning qarar-i-ni medihiyili-gen. person-PL 3PL-GEN decision-3.POSS praise-PST.PART 'People praised/had praised their decision.'

In the cases in (17), -GAn denotes perfectivity and functions as the past participle. Notice that unlike the finite form, the cases have a perfective interpretation as shown in the translations.

-GAn also appears as the primary relativizer in past tense relative clauses, as shown below:

- (18) a. [[u yaz-ghan] kitab-ni] 3SG write-PST.PART book-ACC 'the book s/he wrote'
  - b. Men [[ Tursun ét-ken] tamaq-ni] yé-d-im. 1SG Tursun make-PST.PART food-ACC eat-PST-1SG 'I ate the food that Tursun made.'

The head immediately follows -GAn in basic relative clause constructions, as shown in ((18)ab). The non-past counterpart to -GAn is -Idighan. It cannot be used in finite clauses (unlike -GAn), but is structurally similar in relative clauses:

(19) [u yaz-idighan] kitab-ni 3SG write-NON.PST.PART book-ACC 'the book that s/he writes/will write'

Other than the tense of the relative clause, there is no other relevant difference between *-GAn* and *-Idighan* structures for the purposes of this thesis.

The complementizers dep and -lIK require more explanation. dep surfaces as a main verb in sequential constructions, composed of de- 'to say' + -ip 'sequential/converbial affix', which gets its tense from the next inflected verb. In other cases, it is used to introduce propositions. Both types are provided below respectively:

- (20) a. U bashliq-ning qarar-i toghrisida de-p yaz-d-i 3SG leader-GEN decision-3.POSS about say-CNV write-PST-3SG 'S/he spoke, then wrote about the leader's decision.'
  - b. U Tursun-ni kél-d-i dep angli-d-i 3SG Tursun-ACC come-PST-3SG COMP hear-PST-3SG 'S/he heard that Tursun came.'

Notice that in ((20)a), the interpretation is sequential 'spoke, then wrote', while in ((20)b), *dep* appears to introduce a proposition. I take this as evidence that *dep* has both lexical and functional forms, the second of which I refer to as a complementizer.

The case with *-lIK* is even more complicated. One potential analysis was proposed by Asarina (2011), who proposes that *-lIK* is a complimentizer and not a nominalizer despite its typical treatment as a nominalizer in grammars other works (e.g. Tömür 2003; and for Uzbek (Gribanova 2010)). Consider the sentences in (21) below:

- (21) a. U sén-ing tamaq-ni ét-ken-(liq)-ing-ni
  3SG 2SG.IN-GEN food-ACC make-PST.PART-LIQ-2SG.IN.POSS-ACC bil-i-du.
  know-NON.PST-3SG
  'S/he knows that you made food.'
  - b. [Ötkur-ning tamaq yi-gen-(liq)] isharet-i muhim. Ötkur-GEN food eat-PRT.PST-(LIQ) sign-3.POSS important 'The sign that Ötkur ate food is important.' (Asarina 2011: 94)

Constructions such as ((21)a), have lead researchers to treat -lIK as a nominalizer, because it takes agreement and case-marking. Asarina uses examples such as ((21)b) to show that the agreement actually attaches to an overt head noun, when present. As a result, she proposes that there is actually a null noun taking agreement in structures such as ((21)a). Furthermore, the optionality of *lIK* is more characteristic of a complementizer than a derivational morpheme, in this case a nominalizer.

If *-IIK* truly is a nominalizer, it would have no effect on my analysis, as the only real difference would be that the nominal morpheme *-IIK* selects for a CP complement, as opposed to a null nominal selecting for a CP complement headed by *-IIK*. In either case, the resulting structure would be a complex noun phrase, as shown below:

- (22) a. U [<sub>CP</sub> sén-ing tamaq-ni ét-ken ] (liq)-ing-ni
  3SG 2SG.IN-GEN food-ACC make-PST.PART LIQ-2SG.IN.POSS-ACC bil-i-du.
  know-NON.PST-3SG
  'S/he knows that you made food.'
  - b. U [<sub>CP</sub> sén-ing tamaq-ni ét-ken-(liq)] Ø-ing-ni
    3SG 2SG.IN-GEN food-ACC make-PST.PART-LIQ Ø-2SG.IN.POSS-ACC bil-i-du.
    know-NON.PST-3SG
    'S/he knows that you made food.'

The morphemes -(I)sh and -maq also form nominalized embedded clauses, which appear to be structural equivalents to the -IIK phrases:

(23) a. Tursun [sén-ing manta ét-ish-ing-ni] Tursun 2SG.IN-GEN dumplings make-GER-2SG.INF.POSS-ACC bil-i-du. know-NON.PST-3SG
'Tursun knows that you made dumplings.'

b. Men [ taq-qa chiq-maq-ning qiyin-\*(liq)-i-gha]
1SG mountain-DAT climb-GER-GEN difficult-LIQ-3.POSS-DAT ishin-i-men.
believe-NON.PST-1SG
'I believe climbing mountains is difficult.'

In ((23)a), I show a basic -(*i*)*sh* constructions, where the embedded subject is genitive and possessive agreement immediately follows -(*i*)*sh*. In the case of *-maq*, however, *-lIK* also co-occurs at the right edge of *qiyin* 'difficult', but in this case is strongly preferred. The agreement morphology and case-marking is still found at the right edge of *-lIK*, not following *-maq*. For the purposes of this paper, I focus specifically on *liq* phrases hereafter.

In Table 5 below, I provide a summary of the morphology relevant to embedded clauses:

	a Tenses in Linbedded clauses
Morpheme	Function
-ghan/gen/qan/ken (-GAn)	past participle/past relativizer
-ish/ush/sh (-Ish)	Gerundizer
-idighan/ydighan (-Idighan)	non-past relativizer
dep	complementizer
-lIK	complementizer

Table 5 Complementizers and Tenses in Embedded clauses

## 2.3.1 Nominalized Embedded Clauses

Aside from the alternative analyses regarding *-lIK* described above, there is direct evidence for the nominal status of *-liq* phrases. The most salient is the presence of possessive agreement and case-marking:

(24) Tursun sén-ing u-ni kör-gen-(liq)-*ing-ni* angli-d-i. Tursun 2SG.IN-GEN 3SG-ACC see-PST.PART-LIQ-2SG.IN.POSS-ACC hear-PST-3SG 'Tursun heard that you saw him/her.' The subject of the embedded clause is genitive, and the possessive agreement marker *-ing* and accusative case-marker *-ni* are both displayed immediately after *-lIK* in (24) above. Furthermore, the matrix verb selects for a particular type of case-marked clause as a complement:

- (25) a. U [ siz-ning bazaar-gha két-ken-liq-ingiz-ge/-\*ni]
  3SG 2SG.F-GEN bazaar-DAT leave-PST.PART-LIQ-2SG.F.POSS-DAT/\*ACC ishin-i-du.
  believe-NON.PST-3SG
  'S/he believes you left to the bazaar.'
  - b. U [siz-ning bazaar-gha két-ken-liq-ingiz-ni/\*-ge]
    3SG 2SG.F-GEN bazaar-DAT leave-PST-LIQ-2SG.F.POSS-ACC/\*-DAT bil-i-du.
    know-NON.PST-3SG
    'S/he knows you left to the bazaar.'

(25) shows the contrast between different verbs and the resulting case-marker found on the right edge of the embedded clause. The difference between the *liq* phrases in ((25)a) and ((25)b) is that the verb *ishin*- 'believe' obligatorily selects for a dative embedded clause, while *bil*- 'know' selects for an accusative embedded clause.

Besides case-marking, agreement, and selectional properties of the matrix verb, another reason that suggests these clauses are truly nominals is the fact that they are able to be passivized:

- (26) a. Tursun u-*ni* ur-d-i. Tursun 3SG-ACC hit-PST-3SG 'Tursun hit him/her.'
  - b. U ur-*ul*-d-i. 3SG-NOM hit-PASS-PST-3SG 'S/he was hit.'
  - c. Men [Tursun-ing sen-*i* ur-ghan-liq-i-ni] angli-d-im. 1SG Tursun-GEN 2SG-ACC hit-PST-LIQ-3SG.POSS-ACC hear-PST-1SG 'I heard that Tursun hit you.'

d. [Sén-ing ur-*ul*-ghan-liq-ing] angla-*n*-d-i. 2SG-GEN hit-PASS-PST-LIQ-2SG.POSS hear-PASS-PST-3SG 'That you were hit was heard.'

The contrast between the simple case in ((26)a-b) shows that in a simple case of passivization, the agent is not expressed in the passive, the object is promoted and receives nominative case, and the verb is marked with the passive morpheme -(I)l. ((26)c) presents another *liq* phrase, which exhibits accusative case. In ((26)d), Both the entire *liq* phrase and the matrix clause are passivized, and the accusative case-marking on the clause disappears, as the *liq* phrase is promoted to subject. This further suggests that *liq* phrases are truly nominals.

## 2.3.2 Dep Clauses

Dep clauses<sup>7</sup> are different from *-lIK* phrases because although they are translational equivalents, they do not co-occur with nominal morphology at the right edge of the embedded clause.

- (27) a. U [siz-\*(ni) bazaar-gha két-t-i] dep ishin-i-du. 3SG 2SG.F-ACC bazaar-DAT leave-PST-3SG COMP believe-NON.PST-3SG 'S/he believes that you left to the bazaar.'
  - b. U [siz-ni bazaar-gha két-t-i] dep bil-i-du. 3SG 2SG.F-ACC bazaar-DAT leave-PST-3SG COMP know-NON.PST-3SG 'S/he knows that you left to the bazaar.'
  - c.\*U [siz-ni bazaar-gha két-t-ingiz] dep bil-i-du. 3SG 2SG.F-ACC bazaar-DAT leave-PST-3SG COMP know-NON.PST-3SG 'S/he knows that you left to the bazaar.'
  - d. U [biz-ni bazaar-gha két-t-i] dep bil-i-du. 3SG 1PL-ACC bazaar-DAT leave-PST-3SG COMP know-PRS-3SG 'S/he knows we left to the bazaar.'

Subjects of *dep* clauses take accusative case, and agreement/case morphology does not follow *dep*. ((27)a-b) show that the subject is marked with accusative case regardless of which matrix or

<sup>&</sup>lt;sup>7</sup> dep is historically de- 'to say' combined with -ip, which is the converbial affix.

embedded verb is present. The embedded clause is finite in *dep* clauses, marked with -t/-d past tense inflection, which is disallowed in nominalized embedded clauses. Furthermore, *dep* clauses display 3<sup>rd</sup> person singular agreement on the embedded verb, regardless of subject phi-features. Notice the contrast between ((27)b-c), where in the case of a 2<sup>nd</sup> person singular subject, 3<sup>rd</sup> person singular agreement is strongly preferred ((27)b) in comparison to the 2<sup>nd</sup> person singular agreement we would expect ((27)c). To further emphasize this point, the 1PL pronoun in ((27)d) also co-occurs with 3SG agreement on the embedded verb.

## 2.3.3 Relative Clauses

Uyghur relative clauses are head-final, as expected for SOV languages (Greenberg 1963, Dryer 1992). Uyghur does not display relative pronouns, but rather the head noun immediately follows a verbal suffix *-GAn/Idighan* that denotes aspect:

(28) a.	Xemit [[	sen	yaz-ghan]	xet-ni]	kör-d-i.
	Xemit	2sg.in	write-PST.PART	letter-ACC	see-PST-3SG
	'Xemit saw the letter that you wrote.'				

b. Xemit [[tamaq ét-idighan] adem-ni ] bil-i-du Xemit food make-NON.PST.PART man-ACC know-PST-3SG 'Xemit knows the man who will make food.'

Uyghur also displays headless relative clauses, which are optionally headed:

- (29) a. Kül-iwat-qan-lar-ni toqta-t. laugh-DUR-PST.PART-PL-ACC stop-CAUS.IMP 'Stop those (people) who are laughing.'
  - b. Kül-iwatqan adem-lar-ni toqta-t. laugh-DUR-PST.PART person-PL-ACC stop-CAUS.IMP 'Stop those people who are laughing.'

Notice in ((29)a), that the plural marker intervenes between the durative morpheme *-Iwat* combined with the past participle *-GAn* and the accusative case-marker *-ni*. The only difference

in ((29)b) is the inclusion of the head *adem* 'person'. The interpretation remains the same in both examples.

Now that I have provided a brief survey of the relative clauses in Uyghur, I would like to note

that Uyghur does not display Accessibility Hierarchy (Keenan & Comrie 1977) effects:

Accessibility Hierarchy

SUBJECT > DIRECT OBJECT > INDIRECT OBJECT > OBLIQUE > GENITIVE > OBJ. OF COMPARISON

The relativization strategy remains consistent throughout all types of relativization discussed in

the Accessibility Hierarchy, as shown respectively below:

- (30) a) [[Két-ken] adem] dost-um i-d-i. leave-PST man friend-1SG.POSS AUX-PST-3SG 'The man who left was my friend.'
  - b) Men [sen tap-qan] it-ni kör-d-üm. 1SG 2SG find-PST.PART dog-ACC see-PST-1SG 'I saw the dog that you found.'
  - c) Men [sen kitab ber-gen] muellim-ni kör-d-üm. 1SG 2SG book give-PST.PART teacher-ACC see-PST-1SG 'I saw the teacher that you gave the book to'
  - d) Men [u ishek-ni ach-qan] achquch-ni ishlet-t-im. 1SG 3SG door-ACC open-PST.PART key-ACC use-PST-1SG 'I used the key that he opened the door with.'
  - e) Men [ it-i polu yé-gen] adem-ni kör-d-üm. 1SG dog-3SG.POSS pilaf eat-PST.PART man-ACC see-PST-1SG 'I saw the man whose dog ate pilaf.'
  - f)\*Men [sen-din pakar] muellim-ni kör-d-üm
     1SG 2SG-ABL short teacher-ACC see-PST-1SG
     Intended: 'I saw the teacher that is shorter than you.'

All of the relative clauses shown above are of the same head-final form outlined at the beginning of this section, where the head immediately follows -GAn. In the case of an object of comparison, relativization cannot be done, as shown in ((30)f). The above facts are relevant

because they suggest that ungrammaticality with regard to island effects may not be attributed to the accessibility hierarchy.

## 2.4 Coordination

Uyghur displays numerous coordinate constructions, which will play an integral role in section 4.3, focuses on the Coordinate Structure Constraint. The coordinators *we* and *hem* are interchangeable regardless of syntactic category (e.g. N, V, Adj), but only full VPs may be conjoined with a pause:

- (31) a. Tursun we/hem men manta-(ni) vé-d-im. Tursun and 1SG dumplings-ACC eat-PST-1SG 'Tursun and you ate dumplings.' **b**. U we/hem polu-(ni) manta vé-d-i. 3sG dumplings and pilaf-(ACC) eat-PST-3SG 'S/he ate dumplings and pilaf' we/hem kélishken. c. Tursun ekiliq Tursun smart and handsome 'Tursun is smart and handsome.'
  - d. Men manta ét-t-im, Tursun polu teyerli-d-i. 1SG manta made-PST-1SG Tursun pilaf prepare-PST-3SG 'I made manta and you prepared pilaf.'

Uyghur exhibits three conjunctions that function similarly to 'and' in English. To my knowledge, both *hem* and *we* are can be used interchangeably to conjoin subject DPs ((31)a), object DPs ((31)b), and adjectives ((31)c). The other option for coordination is use of a short pause, which is typically only used when conjoining entire TPs ((31)d).

## 3. Islands in Uyghur

Section 3 focuses on the strength and violability of islands in Uyghur. Section 3.1 explores the Complex Noun Phrase Constraint, section 3.2 investigates wh-islands, and 3.3, the Coordinate Structure Constraint.

Although many new approaches have been proposed to account for island effects, I assume the Subjacency Constraint from Chomsky (1986), illustrated in (32) below:

(32) *Subjacency Constraint*: (Wh)-movement cannot cross more than one bounding node in one step of movement, where bounding nodes are TP and DP.

It is further assumed that Spec, CP acts as an escape hatch, not Spec, DP, for instance. Subjacency was proposed as a generalized constraint to provide a non-stipulative account for islands. I assume subjacency in this paper, despite newer approaches to dealing with islands (Boeckx 2003, 2008; Hornstein et al 2007). This is not intended to oppose modern accounts, but rather that my goal is to situate islands in Uyghur within the general typology of islands.

Also of importance with regard to islands is the status of LF movement of wh-expressions and quantifiers. The most pivotal component necessary here is that wh-movement occurs at LF in wh-in-situ languages (Huang 1982a,1982b). As a result, I investigate the status of subjacency for covert (LF) wh-movement, and more specifically, whether LF movement in Uyghur obeys subjacency.

#### **3.1 Complex Noun Phrase Constraint**

In this section, I investigate whether each embedded clause type shown above (nominalized, non-nominal (dep), and relative clauses) act as islands for extraction. I test extraction of both arguments and adjuncts within each clause type. This is significant, because the CNPC should only show effects in the case of embedded clauses selected by nominals. The presence of

nominal morphology (subject agreement and case) on nominal embedded clauses closely resembles the structure of basic RCs in the language, as head nouns in Uyghur appear at the right edge of the embedded clause. *Dep* clauses are structurally different from both RCs and *liq* phrases in many ways, but most importantly that they do not appear to be nominals. Extraction properties should differ between relative clauses and *dep* clauses, because extraction from DPs is banned by the CNPC. Further distinctions surface when comparing scrambled elements and insitu wh-expressions. This section shows that nominalized embedded clauses share characteristics with both relative clauses and non-nominal embedded clauses. Further evidence is provided that the CNPC is inactive with regard to LF movement.

#### 3.1.1 Background

The Complex Noun Phrase Constraint (CNPC), originally proposed by Ross claims that whextraction is impossible out of a complex NP.

(33) Complex NP Constraint No element contained in an S (TP) dominated by an NP (DP) with a lexical head noun may be moved out of that NP by a transformation. (Ross 1967).

The CNPC extends to two distinct cases. In the first, movement is banned from a relative clause (where a DP selects an adjunct CP (RC)). a CP is selected by a noun requiring an internal argument or relative clause adjuncts. ((34)a) shows the DP complement *who* in its base position, while ((34)b) demonstrates that if *who* is extracted from the complex DP, it becomes ungrammatical.

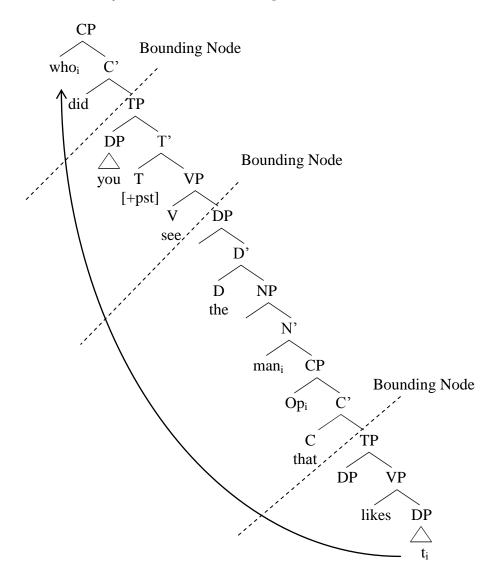
(34) a. You believed [ $_{DP}$  the [ $_{NP}$  message [ $_{CP}$  that John hit **Bill**]]]. DP complement b.\***Who**<sub>i</sub> did you believe [ $_{DP}$  the [ $_{NP}$  message [ $_{CP}$  that John hit **t**<sub>i</sub>]]]?

((35)a) shows a DP adjunct (relative clause) with the wh-word *who* in base position. ((35)b) demonstrates that 'who' may not be extracted from relative clauses:

(35) a. John saw [ $_{DP}$  the [ $_{NP}$  man [ $_{CP}$  that **who** hit]]]? CP complement b.\***who**<sub>i</sub> did you see [ $_{DP}$  the [ $_{NP}$  man [ $_{CP}$  that **t**<sub>i</sub> hit]]]?

The WH-expressions shown in (34) and (35) may not be extracted, because spec, CP is already filled, which results in a subjacency violation, further illustrated below:

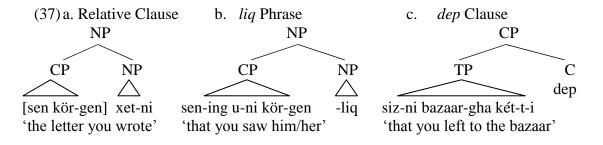
 $(36)a.*Who_i did you see [_{DP} the man [_{CP} Op. that likes t_i]]?$ 



(36) above shows that movement is not allowed across two bounding nodes, TP and NP in the case above, which accounts for the ungrammaticality. Because spec, CP is filled by the operator, it cannot function as an escape hatch, forcing the movement across two bounding nodes.

## 3.1.2 Complex Noun Phrase Constraint in Uyghur

This section investigates island effects for relative clauses, non-nominalized embedded clauses (*dep* clauses), and nominalized embedded clauses (*liq* phrases). I provide abbreviated tree structures below:



The structures in (37) lead us to predict that relative clauses and *liq* phrases should trigger CNPC

effects, while *dep* clauses should be flexible with regard to extraction.

I begin by discussing basic relative clauses, such as (38) below:

- (38) a. Men [[ $Op_i$  bazaar-gha két-ken] adem-ni<sub>i</sub>] kör-d-üm. 1SG bazaar-DAT leave-PST.PART man-ACC see-PST-1SG "I saw the man that left to the bazaar"
  - b. Men [[*Op*<sub>i</sub> siz-ni ur-ghan] adem-ni<sub>i</sub>] kör-d-üm. 1SG 2SG.F-ACC hit-PST.PART man-ACC see-PST-1s "I saw the man that hit you"
  - c. Men [[ $Op_i$  sén-(ing) yaz-ghan] xet-(ing)-ni\_i] kör-d-üm. 1SG 2SG.IN-GEN write-PST.PART letter-2SG.POSS-ACC see-PST-1SG 'I saw the letter that you wrote.'

The basic pre-nominal RC structure is repeated in (38). ((38)a) shows an intransitive subject RC.

((38)b) demonstrates accusative case-marking can the only difference between a subject RC

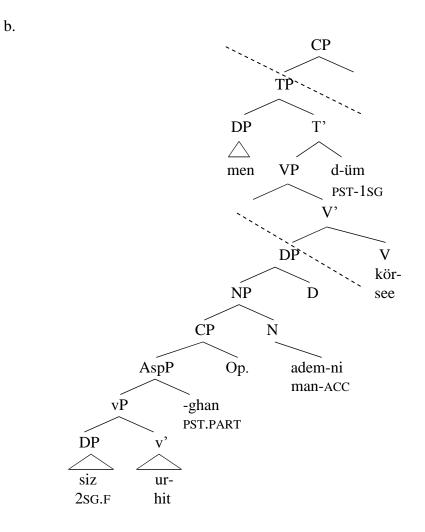
((38)b) and an object RC ((38)c) is the presence of accusative case-marking on the pre-verbal

argument inside the RC.

I assume an analysis of relative clauses in Uyghur, where the relative clause is a CP adjunct to

N (following Asarina 2012). The structure for Uyghur RCs that I assume is shown in (39):

(39) a. Men [DP[CP Op siz ur-ghan] adem-ni] kör-d-üm. 1SG 2SG.F hit-PST man-ACC see-PST-1SG 'I saw the man that you hit.'



The structure for ((39)a) shown in ((39)b) demonstrates that the relative clause should be an island for extraction, because like the English examples shown in section 2, the relative clause is a complement of the noun. The CNPC should prevent movement out of RCs, because movement would require crossing two bounding nodes.

This is indeed the case for both arguments and adjuncts, as demonstrated by the examples in (40) below:

- (40) a. Men [[ Tursun-ni mektep-te ur-ghan] adem-ni ] kör-d-üm. 1SG Tursun-ACC school-LOC hit-PST.PART man-ACC see-PST-1SG 'I saw the man that hit Tursun in the school.'
  - b.\*Tursun-ni<sub>i</sub> men [[t<sub>i</sub> mektep-te ur-ghan] adem-ni] kör-d-üm. Tursun-ACC 1SG school-LOC hit-PST.PART man-acc see-PST-1SG Intended: 'I saw the man that hit Tursun in the school.'

((40)a) presents a basic relative clause, which contains the direct object *Tursun-ni* 'Tursun-ACC' and the adjunct *mektep-te* 'in/at the school'. ((40)b) demonstrates that an argument may not be extracted from a relative clause, even with accusative marking, which is obligatory for scrambling of objects. ((40)c) shows that adjuncts are unable to be (overtly) extracted from a relative clause. The sentence is grammatical if the event of 'seeing' takes place in the school, but an embedded construal is not possible. The patterns in ((40)b) and ((40)c) are exactly as predicted by the CNPC.

Notice that the subject-wh expression is interpreted with matrix scope in ((41)a). ((41)b) shows that an adjunct wh-expression may also surface inside a RC and take matrix scope, while ((41)c) shows that object wh-expressions pattern the same. Finally, ((41)d) demonstrates that the accusative-marked object wh-expression cannot escape via overt movement/scrambling, despite the flexibility displayed by accusative-marked DPs elsewhere in the language:

(41)a. U [ [kim ur-ghan] adem-ni ] kör-d-i? 3SG who hit-PST.PART man-ACC see-PST-3SG 'Which person x: you saw the man who x hit?'

- b. U [ [Xemit qachan ur-ghan] adem-ni ] kör-d-i? 3SG Xemit when hit-PST.PART person-ACC see-PST-3SG 'What time x: s/he saw the man that Xemit hit x?
- c. U [[kim-ni ur-ghan] adem-ni ] kör-d-i? 3SG who-ACC hit-PST.PART person-ACC see-PST-3SG 'Which person x: s/he saw the man that hit x?'
- d.\*Kim-ni<sub>i</sub> u [ [t<sub>i</sub> ur-ghan ] adem-ni ] kör-d-i? who-ACC 3SG hit-PST.PART person-ACC see-PST-3SG 'Intended: Which person x: s/he saw the man that hit x?'

WH-expressions contained inside relative clauses are able to take matrix scope, suggesting that LF movement of wh-expressions is permitted out of islands (complex DPs), at least assuming the analysis of Huang, where wh-expressions raise at LF to determine scope. In other words, it appears that covert (LF) movement ignores the CNPC. This is unsurprising, as studies on other languages, such as: Turkish, Japanese, Chinese (Görgülu 2006; Shimoyama 2012; Huang 1982) allow covert movement of wh-expressions out of CNPs.

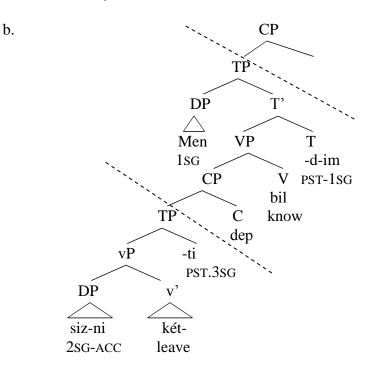
The CNPC appears active with regard to overt movement/scrambling from RCs..

Furthermore, adjunct and argument wh-expressions contained in both clause types are able to freely take matrix scope, which suggests that if covert wh-movement occurs at LF, it is not island-sensitive.

#### 3.1.3 Extraction from *dep* clauses

Unlike relative clauses, *dep* clauses are not complex DPs, and should reflect this by freely allowing extraction or at least proving less restrictive. The structure I assume for *dep* clauses is shown below in (42):

(42) a. Men [siz-ni két-t-i dep ] bil-d-im 1SG 2SG-ACC leave-PST-3SG COMP know-PST-1SG 'I knew that you left.'



Unlike relative clauses, *dep* selects CPs with finite TPs, not AspP. Also notice in ((42)a-b), *dep* clauses do not display nominal morphology or case-marking on the right edge, further suggesting that *dep* CPs are not nouns or noun-complements. As a result, the bounding nodes are both TPs, without an intervening DP bounding node, also unlike relative clauses, meaning that words/constituents contained by *dep* clauses need only cross one bounding node when extracted, and spec, CP is open as an escape hatch. As a result, subjacency is not violated, and movement out of these clauses should be much freer than the relative clauses shown above.

This prediction is borne out. ((43)a) is the base sentence. ((43)b) shows that the accusativemarked *dep* clause subject can be scrambled to the left edge of the matrix clause. Similarly ((43)c) demonstrates that accusative-marked objects may also be scrambled to the left edge of the matrix clause. ((43)d) shows that even an adjunct may be scrambled out and still be interpreted inside the *dep* clause:

- (43) a. U [siz-ni bazar-da Tursun-ni ur-d-i dep] angli-d-i. 3SG 2SG.F -ACC bazaar-LOC Tursun-ACC hit-PST-3SG COMP hear-PST-3SG 'S/he heard that you hit Tursun in the bazaar.'
  - b. Siz-ni u [t<sub>i</sub> bazar-da Tursun-ni ur-d-i dep] angli-d-i. 2SG.F-ACC 3SG bazaar-LOC Tursun-ACC hit-PST-3SG COMP hear-PST-3SG 'S/he heard that you hit Tursun in the bazaar.'
  - c. Tursun-ni u [siz-ni bazaar-da t<sub>i</sub> ur-d-i dep] angli-d-i. Tursun-ACC 3SG 2SG.F-ACC bazaar-LOC hit-PST-3SG COMP hear-PST-3SG 'S/he heard that you hit Tursun in the bazaar.'
  - d. Bazaar-da<sub>i</sub> u [siz-ni t<sub>i</sub> Tursun-ni ur-d-i] dep angli-d-i. bazaar-LOC 3SG 2SG.F-ACC Tursun-ACC hit-PST-3SG COMP hear-PST-3SG 'S/he heard that you hit Tursun in the bazaar.'

Extraction from *dep* clauses is basically free for arguments and adjuncts, as expected. Given the fact that subjacency is not violated, this pattern is unsurprising. Like the case with overt movement discussed above, wh-expressions may also be scrambled out.

The same pattern is observed for overt movement of wh-expressions. ((44)a) shows that an accusative-marked subject wh-expression may undergo overt movement to the sentence initial position and remains ambiguous as to whether it takes matrix or embedded scope, as indicated by the translations. ((44)b) shows that the same pattern remains for the case of an object wh-expression, while ((44)c) demonstrates that adjuncts display the same pattern:

- (44) a. Kim-ni<sub>i</sub> sen [t<sub>i</sub> oqughuchi-lar-ni oqu-t-t-i dep] angli-d-ing who-ACC 2SG.IN student-PL-ACC study-CAUS-PST-3SG C hear-PST-2SG.IN i. 'Who did you hear taught the students?'
  ii. 'You heard who taught the students.'
  - b. Kim-ler-nii sen [Adil-ni ti oqu-t-t-i dep] angli-d-ing who-PL-ACC 2SG.IN Adil-ACC study-CAUS-PST-3SG C hear-PST-2SG.IN i. 'Whom did you hear that Adil taught?'
    ii. 'You heard whom Adil taught.'

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c. Qachan<sub>i</sub> sen [Adil-ni t<sub>i</sub> oqughuchi-lar-ni oqut-t-i dep] when 2SG.IN Adil-ACC student-PL-ACC study-CAUS-PST-3SG COMP angli-d-i hear-PST-2SG.IN
i. 'When did you hear that Adil taught the students?'
ii. 'You heard when Adil taught the students.'

Because extraction from *dep* clauses does not violate subjacency and wh-expressions can be overtly extracted, it comes as no surprise that wh-expressions are able to take matrix or embedded scope from their in-situ positions as well. The paradigm from (44) is repeated below to show that the pattern persists for in-situ questions:

- (45) a. Sen [kim-ni oqughuchi-lar-ni oqu-t-t-i dep] angli-d-ing
  2SG.IN who-ACC student-PL-ACC study-CAUS-PST-3SG COMP hear-PST-2SG.IN
  i. 'Who did you hear taught the students?'
  ii. 'You heard who taught the students.'
  - b. Sen [Adil-ni kim-ler-ni oqu-t-t-i dep] angli-d-ing 2SG.IN Adil-ACC who-PL-ACC study-CAUS-PST-3SG COMP hear-PST-2SG.IN
    i. 'Whom did you hear that Adil taught?'
    ii. 'You heard whom Adil taught.'
  - c. Sen [Adil-ni qachan oqughuchi-lar-ni oqut-t-i dep]
    2SG.IN Adil-ACC when student-PL-ACC study-CAUS-PST-3SG COMP angli-d-ing hear-PST-2SG.IN
    i. 'When did you hear that Adil taught the students?'

ii. 'You heard when Adil taught the students.'

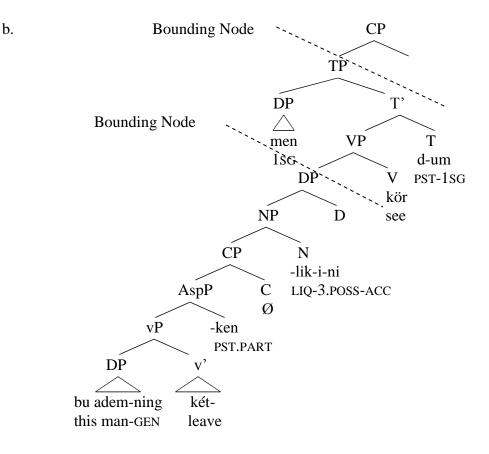
Assuming LF movement of in-situ wh-expressions, the examples above are expected to be okay, because subjacency need not be violated even at LF. ((45)a-b) demonstrate that both subject and object wh-expressions are able to raise out of the embedded clause at LF to take matrix scope (or remain in-situ to take embedded scope). The same is true of adjunct wh-expressions such as ((45)c).

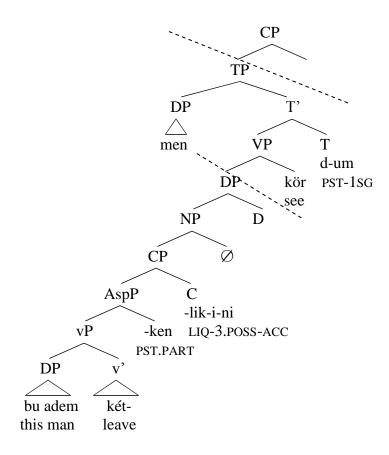
As predicted, extraction from *dep* clauses is permissible for both arguments and adjuncts. Subjacency need not be violated for fronting of non-wh arguments/adjuncts, overt movement of wh-expressions, or covert movement of wh-expressions, so all cases shown above are grammatical.

### 3.1.4 Extraction from *liq* phrases

Before I present the extraction data from nominalized embedded clauses, we must first consider the structure. In the case of nominalized embedded clauses, there are two potential structures for a sentence such as ((46)a). The first possibility is a null noun structure, following the analysis of Asarina (2011), which assumes that a null noun selects a CP complement headed by *-lIK*, as shown in ((46)b). The alternative view throughout the Turkic literature, is that *-lIK* itself is the nominal/nominalizer, demonstrated in ((46)c):

(46) a. U [<sub>DP</sub>[<sub>CP</sub> bu adem két-ken-lik]-i-ni] kör-d-i. 3SG DEM man leave-PST.PART-LIQ-3SG.POSS-ACC see-PST-3SG 'He saw this man leave.'





Regardless of whether we assume ((46)a) or ((46)b) as the appropriate structure, the embedded clause is either the complement of a complex DP headed by a null noun ((46)b) or a complex DP headed by -liq. As a result, extraction should be prohibited from this structure in the same way as the relative clauses shown above. Therefore, in the case of *liq* phrases, the expected pattern for extraction should be more similar to relative clauses than *dep* phrases. This is because nominal morphology is displayed on the right edge of *liq* phrases, suggesting that the entire *liq* phrase is selected by a DP, which is a bounding node, meaning that extraction would require crossing two bounding nodes which should violates subjacency.

((47)a) serves as the base sentence. ((47)b) shows that a genitive subject may not be extracted from an accusative *liq* phrase. ((47)c) demonstrates that an accusative-marked object may be extracted. ((47)d) shows that adjuncts (in this case locative) cannot be extracted:

- (47) a. U [siz-ning bazaar-da Tursun-ni ur-ghan-liq-ingiz-ni]
  3SG 2SG.F-GEN bazaar-LOC Tursun-ACC hit-PST-LIQ-2SG.F.POSS-ACC angli-d-i.
  hear-PST-3SG
  'S/he heard that you hit Tursun in the bazaar.'
  - b.\*Siz-ning<sub>i</sub> u [t<sub>i</sub> bazaar-da Tursun-ni ur-ghan-liq-ingiz-ni] 2SG.F-GEN 3SG bazaar-LOC Tursun-ACC hit-PST-LIQ-2SG.F.POSS-ACC angli-d-i. hear-PST-3SG Intended: 'S/he heard that you hit Tursun in the bazaar.'
  - c. Tursun-ni<sub>i</sub> u [siz-ning bazaar-da t<sub>i</sub> ur-ghan-liq-ingiz-ni] Tursun-ACC 3SG 2SG.F-GEN bazaar-LOC hit-PST-LIQ-2SG.F.POSS-ACC angli-d-i. hear-PST-3SG 'S/he heard that you hit Tursun in the bazaar.'
  - d.\*Bazaar-da<sub>i</sub> u [siz-ning t<sub>i</sub> Tursun-ni ur-ghan-liq-ingiz-ni]
    bazaar-LOC 3SG 2SG.F-GEN Tursun-ACC hit-PST-LIQ.2SG.F.POSS-ACC angli-d-i.
    hear-PST-3SG
    'S/he heard that you hit Tursun in the bazaar.'

Therefore the genitive subject and adjuncts behave as subjacency would predict, but the accusative-marked object is anomalous. Why objects are able to be extracted is an area for future investigation.

To show that the case-marking on the embedded clause is not responsible for the extraction factions, the same paradigm is shown for a dative-marked *liq* phrase selected by the matrix verb *ishin* 'believe' in (48), which demonstrates that once again the accusative-marked object is the only constituent that may be extracted:

(48) a. U [siz-ning bazaar-da Tursun-ni ur-ghan-liq-ingiz-gha]
3SG 2SG.F-GEN bazaar-LOC Tursun-ACC hit-PST-LIQ-2SG.F.POSS-DAT ishin-d-i.
believe-PST-3SG
'He believed that you hit Tursun in the bazaar.'

- b.\*Siz-ningi u [ti bazaar-da Tursun-ni ur-ghan-liq-ingiz-gha]
  2SG.F-GEN 3SG bazaar-LOC Tursun-ACC hit-PST-LIQ-2SG.F-POSS-ACC ishin-d-i.
  believe-PST-3SG
  'Intended: He believed that you hit Tursun in the bazaar.'
- c. Tursun-ni<sub>i</sub> u [siz-ning bazaar-da t<sub>i</sub> ur-ghan-liq-ingiz-gha] Tursun-ACC 3SG 2SG.F-GEN bazaar-LOC hit-PST-LIQ-2SG.F.POSS-ACC ishin-d-i. believe-PST-3SG 'He believed that you hit Tursun in the bazaar.'
- d.\*Bazaar-da<sub>i</sub> u [siz-ning t<sub>i</sub> Tursun-ni ur-ghan-liq-ingiz-gha] bazaar-LOC 3SG 2SG.F-GEN Tursun-ACC hit-PST-LIQ-2SG.F.POSS-ACC ishin-d-i. believe-PST-3SG 'He believed that you hit Tursun in the bazaar.'

Like the case of relative clauses, however, Uyghur freely allows wh-expressions to occur inside

liq phrases. In each case, the wh-expression may take either matrix or embedded scope. ((49)a)

demonstrates this fact for a genitive-marked subject, ((49)b) for an accusative-marked object,

and ((49)c) for a locative adjunct:

- (49)a. U [kim-ning bazaar-da Tursun-ni ur-ghan-liq-ingiz-ni] 3SG who-GEN bazaar-LOC Tursun-ACC hit-PST-LIQ-3SG.POSS-ACC angli-d-i hear-PST-3SG

  'Who did s/he hear hit Tursun in the bazaar?'
  S/he heard who hit Tursun in the bazaar.'

  b. U [siz-ning bazaar-da kim-ni ur-ghan-liq-ingiz-ni] 3SG 2SG.F-GEN bazaar-LOC who-ACC hit-PST-LIQ-2SG.F.POSS-ACC angli-d-i hear-PST-3SG

  'Who did s/he hear that you hit in the bazaar?'
  - 1. Who did s/ne near that you hit in the bazaar
  - ii. 'S/he heard who you hit in the bazaar.'
  - c. U [siz-ning nede Tursun-ni ur-ghan-liq-ingiz-ni]
    3SG 2SG.F-GEN where.LOC Tursun-ACC hit-PST-LIQ-2SG.F.POSS-ACC angli-d-i
    hear-PST-3SG
    i. 'Where did he hear that you hit Tursun?'
    ii. 'He heard where you hit Tursun.'
    - 36

Assuming LF movement of wh-expressions, the data in (49) further highlights the asymmetry between overt and covert movement. With the exception of objects, overt extraction from *liq* clauses produces island effects, while covert movement does not.

### 3.1.5 Summary

In this section, I presented extraction data to provide insight into the nature of relative clauses, non-nominalized embedded clauses, and nominalized embedded clauses. I predicted that extraction from DPs (relatives and *liq*) would be significantly more restricted than from CPs (*dep*). After providing a comparison of each of these clause types, this appears to be the right assumption. Extraction from *dep* clauses is not blocked because it is not extraction from a DP. Extraction from relative clauses is impossible, because it directly violates the CNPC, meaning that relative clauses are DP-islands in Uyghur. *liq* phrases share characteristics with both other types. Extraction of objects from *liq* phrases is permissible, but extraction of genitive subjects and adjuncts is blocked. The fact that extraction properties are different between RCs and *liq* phrases suggests that the internal structure of *liq* phrases is probably not quite the same as a relative clause or a headless relative clause in the language, otherwise the extraction properties would be expected to be the same.

The exception regarding LF movement has been observed in other languages, such as Japanese in (50) and Turkish in (51)(52):

(50) a. Taro-wa [[dare-ga katta] mochi]-o tabemasita ka? Taro-Top who-Nom bought rice cake-ACC ate Q
'Who x did Taro eat rice cakes that x bought?' (Relative Clause) (Shimoyama 2001: 15) b. Kimi-wa [dare-o egai-ta hon]-o yomi masi-ta ka? you-TOP who-ACC described book-ACC read HON-PST Q 'You read a book such that it described who?' or Lit. 'Who did you read a book that described \_\_?' (Nishigauchi 1999: 5)

Notice that in (50), Japanese does not display CNPC effects for covert movement, like Uyghur,

as the wh-expression contained in a relative clause may take matrix scope via covert movement.

Turkish also does not display CNPC sensitivity in the case of LF movement:

(51) a.	Cem	[[kim-i	sev-en]	adam]= 1	tanı-yor?
	Cem-NC	M who-AC	C love-NOM	man-ACC	know-prog
	'Who is	(x) such that	at Cem knows	s the man w	vho loves (x)? (Görgülü 2006: 71)
b.	Cem	[[kim-in	beğen-diğ-i]	ev-i]	satın al-dı?
	Cem-NC	M who-GEN	like-NOM-PO	ss house-A	CC buy-past
	'Who (x	x) is it such t	that Cem boug	ght the hou	se which x likes?' (Görgülü 2006: 71)

An in-situ wh-expression may take matrix scope without triggering CNPC effects.

The Uyghur data contributes further evidence to the typology of CNPC effects in wh-in-situ languages, providing further evidence that the same sensitivity is not displayed as in wh-movement languages.

### 3.2 WH-Islands

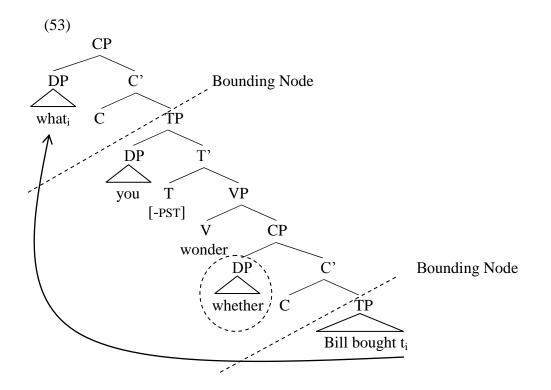
Similar to the case of complex DPs, WH-islands are cases where spec, CP has already been filled, requiring syntactic elements to move over two bounding nodes in one step of movement (because spec, CP cannot function as an escape hatch), yielding ungrammaticality. However, wh-islands are considered weak islands, which means they are sometimes violable, unlike strong islands (e.g. CNP islands).

(52) shows the well-known asymmetry between arguments and adjuncts regarding extraction from wh-islands:

(52) a.\*? What<sub>i</sub> do you wonder [ $_{CP}$  whether [ $_{TP}$  Bill bought t<sub>i</sub>]]? Argument b.\*\*How<sub>i</sub> do you wonder [ $_{CP}$  whether [ $_{TP}$  Bill caught the fish t<sub>i</sub>]] Adjunct

In ((52)a-b), the spec, CP position is filled in both cases, which leads to the ungrammaticality of both. However, speakers generally recognize a distinction between these two regarding the severity of ungrammaticality. Movement of the argument wh-expression in ((52)a) is considered much more acceptable than the adjunct in ((52)b). This has lead to the claim that arguments are not as sensitive to weak islands, unlike adjuncts which do display sensitivity (Huang 1982, Chomsky 1986).

I provide the structure for ((53)a) in the tree below to further illustrate wh-island violations:



In (53), Spec, CP is filled by the wh-expression 'whether', which requires the wh-object 'what' to cross two bounding nodes in one step of movement, yielding the utterance ungrammatical.

In Uyghur, it is necessary to take a different approach to investigate wh-islands, as the language does not display equivalent constructions to the typical English examples. Semantic equivalents for typical 'whether' embedded clauses in English are shown below for Uyghur:

- (54) a. Men [Mahinur-ning men-i yaxshi kör-mey-dighan-liq-i-din]
  1SG Mahinur-GEN 1SG-ACC good see-NEG-NON.PST.PART-LIQ-3SG.POSS-ABL ensira-y-men.
  wonder-NON.PST-1SG
  'I wonder whether Mahinur likes me'
  - b. U Tursun-ing qizil haraq ichi-dighan-(liq-i-ni) yaki 3SG Tursun-GEN red alcohol drink-NON.PST.PART-LIQ-(3SG.POSS-ACC) or ich-mey-dighan-liq-i-ni sori-d-i. drink-NEG-NON.PST.PART-LIQ-3SG.POSS-ACC ask-PST-3SG 'S/he asked whether or not Tursun would drink wine'

Notice that there is no WH-expression, or any element which one would expect to fill spec, CP. Both constructions involve *liq* phrases, so investigating overt extraction is not an option, as any violation could be a result of the CNPC as shown above. So instead I follow the paradigm used by Huang (1982a-b), demonstrated below:

(55) a. [Ni xiang-zhidao [shei mai-le sheme]]? you wonder who bought what	Question
<ul> <li>b. [Wo xiang-zhidao [Lisi mai-le sheme]].</li> <li>I wonder Lisi bought what</li> <li>'I wonder what Lisi bought.'</li> </ul>	Answer 1
<ul> <li>c. [Wo xiang-zhidao [shei mai-le shu]].</li> <li>I wonder who bought book</li> <li>'I wonder who bought books.'</li> <li>(Huang 1982b: 382)</li> </ul>	Answer 2

The question in ((55)a) may be answered in two different ways. The first possibility shown in ((55)b) requires that the subject wh-expression take matrix scope, while ((55)c) requires that the object wh-expression takes matrix scope, while the other wh-expression in each examples takes

embedded scope. Assuming that a wh-expression that takes embedded scope moves to Spec, CP, a wh-expression taking matrix scope should not be able to use this position as an escape hatch. This is contrary to fact for the argument wh-expressions shown above.

Like English, there is an argument adjunct asymmetry in Chinese, as demonstrated below:

(56) Ni xiang-zhidao [shei weisheme da-le Zhangsan]? you wonder who why beat Zhangsan
i. 'For which person x, you wonder why x beat Zhangsan.'
ii.\*'For which reason x, you wonder who beat Zhangsan for x.' (Huang 1982b: 384)

Notice that the subject wh-expression in (56) is able to scope over the adjunct wh-expression, but the adjunct wh-expression may not scope over the subject-wh. This is unlike many other cases discussed earlier in this thesis where wh-in-situ avoids triggering island-effects.

### 3.2.1 WH-islands in Uyghur

Before discussing the wh-island paradigm in Uyghur, I first provide some basic information about embedded/indirect questions and scope. Inside an embedded clause selected by *angla*-'hear', argument and adjunct wh-expressions may take either embedded or matrix scope:

(57) a. Tursun [kim-ning polu-ni		angli-d-i
Tursun who-GEN pilaf-ACC i. 'Tursun heard who ate pila ii. 'Who did Tursun hear ate	1	ear-PST-3SG
b. Tursun [ Xemit-ning qachar	n két-ken]-liq-i-ni go-PST.PART-LIQ-3.POSS-ACC it left.' Indirect question	angli-d-i hear-PST-3SG

((57)a) shows that the subject wh-expression may be interpreted with matrix scope despite its position inside the embedded clause. The same is true of adjuncts, as shown in ((57)b). The

differences between interpretations are strictly determined by prosody, which is an issue outside the scope of this thesis.

Uyghur exhibits multiple questions in embedded clauses. (58) shows that Uyghur does not show island sensitivity for arguments (like Chinese), as indicated by the translations:

(58) a. U [Adil-ning polu-ni yé-gen]-liq-i-ni	sori-d-i.
3sg Adil-GEN pilaf-ACC eat-PST.PART-LIQ-3.POS 'S/he asked Adil if he ate polu.'	S-ACC ask-PS1-58G
b. U [ kim-ning neme-ni yé-gen]-liq-i-ni 3SG who-GEN what-ACC eat-PST.PART-LIQ-3.PC	sori-d-i. SS-ACC ask-PST-3SG
i. 'S/he asked who ate what.'	Indirect Question
<ul><li>ii. 'For which x, y: s/he asked which x ate which y' (Answer: 'He asked if Jon ate Chicken, Sue turkey')</li></ul>	Direct Pair/List Question
<ul><li>iii. 'For which x, s/he asked what x ate'</li><li>(Answer: 'He asked what Jon ate, what Sue ate')</li></ul>	Subject Direct Wh-Question
iv. 'For which y: s/he asked who ate y' (Answer: 'He asked who ate turkey, who ate chicken')	Object Direct Wh-Question

Notice that both wh-expressions may take embedded scope (i) to form an indirect question, both may take matrix scope requiring a pair list answer (ii), only the subject wh-expression may take matrix scope (iii), or only the object (iv). This flexibility suggests that Uyghur behaves like Chinese for argument wh-expressions and does not display wh-island sensitivity.

There is a further asymmetry found within adjuncts in Uyghur. I repeat the paradigm from (58) below with a subject and adjunct wh-expression in (59):

(59) U kim-ning qachan polu-ni yé-gen-liq-i-ni sori-d-i
3SG who-GEN when pilaf-ACC eat-PST.PART-LIQ-3.POSS-ACC ask-PST-3SG
i. 'S/he asked who ate pilaf when.'
ii. 'For which x, at which time y: s/he asked which x ate pilaf at y?'
iii. 'For which x: s/he asked when x ate pilaf?'
iv.? 'For which time x: s/he asked who ate pilaf at x?'

All four interpretations from the previous example are possible when an argument and adjunct wh-expression are contained in the embedded clause. However, the case where the adjunct wh-expression scopes over the subject wh becomes only marginally grammatical (iv).

In a case with an adjunct such as *nemishqa* 'why' paired with the subject wh-expression<sup>8</sup>, the interpretive possibilities pattern the same as the Chinese data:

- (60) U [kim-ning némishqa polu-ni yé-gen]-liq-i-ni sori-d-i
   3SG who-GEN why pilaf-ACC what-PST.PART-LIQ-POSS3-ACC ask-PST-3SG
   i. 'S/he asked who ate pilaf why.'
  - ii. 'For which x, for which reason y, did s/he ask if x ate pilaf y?'
  - iii. 'For which x, did s/he ask why x ate pilaf?'
  - iv.\*'For which reason x, did s/he ask who ate pilaf x?'

The fact that the interpretation in (iv) is not allowed in (60), but is in (59) is interesting, because

there is an asymmetry between types of adjuncts, beyond the argument/adjunct asymmetry found

for both English and Chinese.

This Uyghur pattern is similar to Turkish, as demonstrated in (61) below:

(61) a. Cem [kim-in satin al-diğ-i-ni] sor-du? ne-yi Cem who-ACC what-ACC ??? buy-NOM-POSS-ACC ask-PAST (i) "What does Cem ask who bought?" (ii) "Who does Cem ask bought what?" (iii) "Cem asked who bought what." (Görgülü 2006:73) b. Cem [kim-in ne zaman gel-diğ-i-ni] sor-du Cem who-ACC what time come-NOM-POSS-ACC ask-PST (i) "Cem asked who came when." (ii) "Who does Cem ask came when?" (iii)?? "When does Cem ask who came?" (Görgülü 2006:73)

<sup>&</sup>lt;sup>8</sup> Uyghur does not display superiority effects in any case besides *nemishqa* 'why', demonstrated below:

a.	u	qachan i	nemishqa	ket-t-i?	when why
	3sg	when	why	come-PST-3SG	
	'When did he come why?'				
b.	* u	nemishqa	qachan	ket-t-i?	*why when
	3sg	why	when	come-PST-3SG	
	Intended: 'Why did he come when?'				

Arguments do now appear to display island sensitivity ((61)a), but if the adjunct wh-expression scopes over the subject wh, the interpretation is only marginally grammatical ((61)b).

### 3.2.2 Summary

Unlike the CNPC, Uyghur displays island sensitivities for wh-in-situ constructions for whislands. However, wh-island sensitivities are only observed in the case of adjuncts. Whexpressions such as *nemishqa* 'why' cannot scope over a subject-wh expression, but other adjunct wh-expressions (e.g. *qachan* 'when') may scope over argument wh-expressions with marginal acceptability. The Uyghur data is compatible with the results found in Turkish (Görgülü 2006), Japanese (Takahashi 2012; Shimoyama 2001; Nishigauchi 1999), and Chinese (Huang 1982a, 1982b), which suggests that wh-islands are active even in wh-in-situ languages (at least for adjuncts).

### **3.3** The Coordinate Structure Constraint in Uyghur

Ross (1967) recognized that extraction out of coordinate structures is also prohibited. These observations lead him to postulate the Coordinate Structure Constraint (CSC).

(62) Coordinate Structure Constraint In a coordinate structure: a) no conjunct may be moved, and b) an element contained in a conjunct may not be moved out of a conjunct. (Ross 1967: 4.84)

In (63), neither the first nor second conjunct can be moved:

(63) a. You saw Bill and Tom.b.\*Who did you see \_\_\_\_ and Tom ?c.\*Who did you see Tom and \_\_\_ ?

Neither the first conjunct 'Bill' can be wh-moved to the front of the sentence ((63)b), nor the second conjunct 'Tom' in ((63)c).

Similarly, elements from within a conjunct cannot be moved, as shown in (64):

(64) a. Bill ate chicken and watched televisionb.\*What did Bill eat \_\_\_\_\_ and watch television?c.\*What did Bill eat chicken and watch \_\_\_\_\_?

The object 'chicken' within the first conjunct cannot be extracted without yielding ungrammaticality ((64)b). The same is true of the object of the second conjunct 'television' ((64)c).

Ross noted a systematic exception to the CSC, which also seems to be cross-linguistically robust. This exception is known as *Across the Board movement* (henceforth referred to as ATB). Essentially ATB movement requires that extraction not take place out of only one conjunct, but out of both (or all) conjuncts<sup>9</sup>.

(65) a. [Which food]<sub>i</sub> did Mary cook \_\_\_\_ and Jon eat \_\_\_\_ ?
b. [Which article]<sub>i</sub> did Bill read \_\_\_, Scott write \_\_\_, and Jon edit \_\_\_\_ ?

In ((65)a), notice that as long as extraction takes place from both conjuncts, the utterance is ungrammatical. ((65)b) shows that this remains true in the case of extraction from three conjuncts as well.

### 3.3.1 The Coordinate Structure Constraint in Uyghur

Coordinate structures in Uyghur are formed in three ways, as mentioned in section 2.3. Various asymmetries regarding the CSC make Uyghur unique amongst the many languages that have been investigated. In (66) below, the basic strategies for coordination of DP, VP, TP, and CPs are shown respectively:

(66) a. [Tursun we/hem Xemit] uxli-d-i. Tursun and Xemit sleep-PST-3SG 'Tursun and Xemit slept'

<sup>&</sup>lt;sup>9</sup> Hornstein and Nunes 2000 argue that this is because coordinate structures are subject to a *parallelism* requirement.

- b. U [ polu-(ni) yé-d-i **we/hem** su-(ni) ich-t-i]. 3SG pilaf-ACC eat-PST-3SG and water-ACC drink-PST-3SG 'S/he ate pilaf and drank water.'
- c. [Men manta ét-t-im (we/Ø) u polu tejarli-d-i]. 1SG manta made-PST-1SG and 3SG pilaf prepare-PST-3SG 'I made manta and s/he prepared pilaf.'
- d. [Tursun-ning két-ken-lik-i we/Ø Xemit-ning qal-ghan-liq-i] Tursun-GEN leave-PST-LIQ-3.POSS and Xemit-GEN stay-PST-LIQ-3.POSS men-i heyran qal-dur-d-i. 1SG-ACC surprise remain-CAUS-PST-3SG 'That Tursun left and Xemit stayed surprised me.'

As mentioned prior, *hem* and *we* are interchangeable. Overt coordinators are preferred in DP and VP coordination, shown in ((66)a-b) respectively. In the cases of TP and CP coordination, overt coordination with *we* (but not *hem*) becomes acceptable, but a pause is the preferred coordination strategy ((66)c-d).

According to the CSC, a conjunct or anything contained in the conjunct is not able to be moved. As I have already shown, scrambling is widely permissible in Uyghur, but scrambling of conjuncts or elements within conjuncts is banned (in accord with the CSC). In order to eliminate conjunct-internal scrambling from this investigation, the coordinate constructions that follow are embedded.

((67)a) is the base sentence, which displays a sentence containing object-DP coordination<sup>10</sup>. ((67)b) shows that the first conjunct may not undergo overt movement to the front of the sentence, while ((67)b) shows that movement of the second conjunct is also not permitted:

b. men alma we anar-**lar-ni** al-d-im 1SG apple and pomegranate-PL-ACC buy-PST-1SG 'I bought apples and pomegranates.'

<sup>&</sup>lt;sup>10</sup> In coordinate structures, case-marking is only required on the final DP. This follows suit with the Turkic literature of suspended affixation (Kabak 2007, Kornfilt 1997), which generally allows optionality for suffixation if they are of the same type as a word inflected later in the sentence:

a. sen Tursun we Mahinur-**ni** kör-d-üng 2SG Tursun and Mahinur-ACC see-PST-2SG 'You saw Tursun and Mahinur.'

(67) a. U [Tursun-ni we/hem Mahinur-ni] kör-d-i. 3sg Tursun-ACC and Mahinur-ACC see-PST-3SG 'S/he saw Tursun and Mahinur' b.\*Mahinur-ni<sub>i</sub> u [Tursun-ni we/hem t<sub>i</sub>] kör-d-i] Mahinur-ACC 3SG Tursun and see-PST-3SG 'Intended: S/he saw Tursun and Mahinur.' c.\*Tursun-ni<sub>i</sub> u [t<sub>i</sub> we/hem Mahinur-ni ] kör-d-i Tursun-ACC 3SG Mahinur-ACC see-PST-3SG and

'Intended: S/he saw Tursun and Mahinur.'

The pattern above shows that Uyghur obeys the CSC with regard to overt extraction of an entire conjunct. The second restriction included in the CSC is that elements within a conjunct are also barred from movement.<sup>11</sup> ((68)a) is the base sentence, which displays embedded VP coordination. ((68)b) shows that an element contained in the first conjunct cannot be extracted, while ((68)c) shows that the same is true for the second conjunct:

(68) a. Tursun u-ni [polu-ni yé-d-i we/hem su-ni Tursun 3SG-ACC pilaf-ACC eat-PST-3SG and water-ACC ich-t-i ] dé-d-i. eat-PST-3SG say-PST-3SG 'Tursun said that s/he ate pilaf and drank water.'

b.\*Polu-ni<sub>i</sub> Tursun u-ni [t<sub>i</sub> yé-d-ing we/hem su-ni pilaf-ACC Tursun 3SG-ACC eat-PST-2SG and water-ACC ich-t-i ] dé-d-i.
drink-PST-3SG say-PST-3SG 'Intended: Tursun said that s/he ate pilaf and drank water.'

c.\*Su-ni<sub>i</sub> Tursun u-ni [polu-ni yé-d-i we/hem t<sub>i</sub> water-ACC Tursun 3SG-ACC pilaf-ACC eat-PST-3SG and ich-t-i ] dé-d-i drink-PST-3SG say-PST-3SG 'Intended: Tursun said that s/he ate pilaf and drank water.'

<sup>&</sup>lt;sup>11</sup> Conjunct-internal scrambling is permitted:

a. polu-ni<sub>i</sub> sen t<sub>i</sub> yé-d-ing we/hem su-ni ich-t-ing pilaf-ACC 2SG eat-PST-2SG and water-ACC drink-PST-2SG 'You ate pilaf and drank water.'

Despite the evidence that Uyghur obeys the CSC with regard to overt movement, whexpressions may freely occur inside conjuncts. ((69)a) is the base sentence, which displays DP coordination. ((69)b-c) show that either DP may be replaced by a wh-expression while maintaining grammaticality:

(69)a.	U	Tursun	we ]	Mahinur-ni	kör-d-i.
	3sg	Tursun	and ]	Mahinur-ACC	see-PST-3SG
	'S/he	saw Turs	un ar	nd Mahinur.'	
b.	U	Tursun	we	kim-ni	kör-d-i?
	3sg	Tursun	and	who-ACC	see-PST-3SG
	ʻWho	o did s/he	see T	'ursun and?'	
c.	U	kim we	M	lahinur-ni	kör-d-i?
	3sg	who and	d M	lahinur-ACC	see-PST-3SG
	'Who did s/he see and Mahinur?'				

This suggests that covert wh-movement at LF is permissible out of conjuncts in Uyghur. Notice that the translations of ((69)b-c) are ungrammatical in English, because overt movement of a wh-expression from a conjunct is banned by the  $CSC^{12}$ . This appears to be another asymmetry between wh-movement and wh-in-situ languages.

Like the scrambling cases in (68), overt movement of wh-expressions from a conjunct also yields ungrammaticality, demonstrated in ((70)a-c):

- (70) a. U Tursun we kim-ni kör-d-i? 3SG Tursun and who-ACC see-PST-3SG 'Who did s/he see Tursun and?'
  - b.\*Kim-ni<sub>i</sub> u Tursun we t<sub>i</sub> kör-d-i? who-ACC 3SG Tursun and see-PST-3SG 'Intended: Who did s/he see Tursun and ?'
  - c.\*Kim-ni<sub>i</sub> u t<sub>i</sub> we Mahinur-ni kör-d-i? who-ACC 3SG and Mahinur-ACC see-PST-3SG 'Intended: Who did s/he see and Mahinur?'

<sup>&</sup>lt;sup>12</sup> Echo questions are permitted inside of conjuncts in English (e.g. You saw Jon and WHO?).

The examples in (70) demonstrate that wh-expressions may not be extracted from conjuncts.

This is true of both conjuncts, which follows the same pattern as arguments.

Across the board (ATB) movement is also permitted in Uyghur. As mentioned earlier, as long as extraction takes place out of each conjunct, movement is acceptable.

- (71) a. Polu-ni u ét-t-i we Tursun yé-d-i. pilaf-ACC 3SG make-PST.3SG and Tursun eat-PST-3SG 'S/he made and Tursun ate pilaf.
  - b. Néme-ni u ét-t-i we Tursun yé-d-i? what-ACC 3SG make-PST-3SG and Tursun eat-PST-3SG 'What did s/he make and Tursun eat?'
  - c. Tursun bu maqali-ni Xemit-ni \_\_\_ yaz-d-i u-ni Tursun this article-ACC Xemit-ACC write-PST-3SG 3SG-ACC oqu-d-i \_\_\_ dep oyli-d-i. read-PST-3SG COMP think-PST-3SG 'Tursun thinks that Xemit wrote and s/he read this article.'
  - d. Tursun néme-ni Xemit-ni yaz-d-i u-ni Tursun what-ACC Xemit-ACC write-PST-3SG 3SG-ACC oqu-d-i dep oyli-d-i? read-PST-3SG COMP think-PST-3SG 'What does Tursun think that Xemit wrote and you read?'

In ((71)a), I show that when *polu* corresponds to both gaps, movement out of conjuncts is permitted in Uyghur. Similarly, the wh-expression *néme* can take the place of the object, which results in a question requiring two answers, shown in ((71)b). In ((71)c) *bu maqalini* 'this article' corresponds to the gaps in both conjuncts, movement is permitted even within an embedded clause. When this object is replaced by a wh-expression, the same facts hold in ((71)d) in an embedded clause, as in ((71)b) where the conjuncts are not embedded.

### 3.3.2 Coordinate Structure Constraint Summary

Overt extraction of DPs from coordinate structures is banned from Uyghur, which resembles the findings for wh-movement languages. Like the CNPC, however, in-situ wh-expressions are

allowed inside a single conjunct. In other words, the CSC only appears to be active for overt movement in Uyghur.

This finding is similar to Japanese, which also does not show CSC sensitivity for in-situ whexpressions:

(72) Taro-wa niku to nani-o kattano?
Taro-TOP meat and what-ACC buy
'What is the thing x such that Taro bought some meat and x?' (Cheung 2003: 1)

The fact that the CSC is violable for covert wh-movement is unsurprising given data such as (72), as there seems to be a general tendency for covert movement to avoid triggering island effects.

# 3.4. Crossover Effects

Crossover effects were first noted by Postal (1971), who noticed that wh-expressions cannot be co-referenced with pronouns that they move across (to the left of). Further research has lead to distinctions between Weak Crossover and Strong Crossover (namely Wasow, 1979), shown below:

Although both examples in (73) are both considered ungrammatical, ((73)a) is considered to be considerably less acceptable than ((73)b).

#### 3.4.1 Strong Crossover

Strong Crossover Effects (SCO) occur when a wh-expression crosses over a co-indexed pronoun that c-commands the wh-expression's trace, demonstrated below:

(74) a. \*Who<sub>i</sub> does he<sub>i</sub> think t<sub>i</sub> loves Mary ?b. \*Who<sub>i</sub> does he<sub>i</sub> love t<sub>i</sub> ?

In both cases in (74), the wh-expression 'who' moves across the co-indexed pronoun 'he', which c-commands its trace and triggers SCO effects.<sup>13</sup> In this case, the ungrammaticality is attributed to the fact that the tail of the wh-chain (the in-situ position of the wh-expression), is bound.

Uyghur also displays SCO effects despite being wh-in-situ, as shown in (75):

- (75) a. U kim-ni söy-i-du? 3SG who-ACC love-PRS-3SG 'Who does s/he love?' \*'Which person x: x loves x?'
  - b. Kim-ni u söy-i-du who-ACC 3SG love-PRS-3SG 'Who does s/he love?'
    \* 'Which person x: x loves x?'

Unlike in English, the wh-expression does not cross over the c-commanding pronoun on the surface in ((75)a), yet the utterance is still ungrammatical. This suggests that even LF movement still triggers SCO effects in Uyghur. The LF structure is also permitted on the surface via scrambling, such as ((75)b), which also gives rise to SCO effects.

# 3.4.2 Weak Crossover

Weak Crossover Effects (WCO) are observed when a wh-trace is c-commanded by an XP that contains a co-referenced pronoun. Two different constructions have been associated with weak crossover effects in English, shown in (76) below:

In ((76)a), the co-indexed pronoun *his* contained by a DP c-commands the wh-trace, yielding the utterance ungrammatical because of WCO. The LF representation in ((76)b) also shows that QR

<sup>&</sup>lt;sup>13</sup> Chomsky (1976, 1981) reduces this to a principle C violation, which assumes that wh-traces are R-expressions.

triggers WCO effects. In both cases, the wh-expression or quantifier phrase crosses over the ccommanding possessive pronoun 'his'.

Unlike the SCO facts shown in the prior section, Uyghur does not display WCO effects:

- (77) a. [U-ning<sub>i</sub> ani-si] kim-ni<sub>i</sub> söy-i-du ?
  3SG-GEN mother-3SG.POSS who-ACC love-PRS-3SG
  'Who does his mother love?'
  'Which person x: x's mother loves x?'
  - b. Kim-ni<sub>i</sub> [u-ning<sub>i</sub> ani-si] söy-i-du?
    who-ACC 3SG-GEN mother-3SG.POSS love-NON.PST-3SG
    'Who does his mother love?'
    'Which person x: x's mother loves x?'

Notice that regardless of constituent ordering above, the co-indexed reading is possible and WCO effects are not observed. In this case, WCO are not even triggered by overt movement as evidenced by ((77)b).

### 3.4.3 Crossover Summary

Uyghur exhibits SCO effects for overt and covert movement, but does not trigger WCO effects in either case. Further investigation is needed to completely pin down the reason for these differences, but at the very least, SCO provides another restriction on LF movement in Uyghur.

# 5. Conclusion

In this thesis, I have shown that Uyghur displays asymmetries between wh-in-situ and whmovement constructions with regard to island sensitivity in Uyghur. I have provided novel Uyghur data, including an in-depth investigation of embedded clauses. I have provided evidence that wh-islands (for adjuncts) and strong crossover effects are triggered by covert wh-movement, which fits in nicely with the wh-in-situ literature on islands. On the other hand, overt extraction (via scrambling) from complex noun phrases and coordinate structures triggers island effects, similar to wh-movement in wh-movement languages. My findings are summarized in Table 6:

		Overt movement	Covert movement
CNPC <i>dep</i>		No	No
	Relatives	Yes	No
	liq	Yes (except objects)	No
Wh-islands		?	Yes (adjuncts only)
CSC		Yes	No
Strong crossover		Yes	Yes
Weak c	rossover	No	No

Table 6: Summary of Island Sensitivity in Uyghur

In the future, I intend to continue investigating nominalized embedded clauses in order to more fully understand their distributions and structures. This investigation has also opened up interesting questions with regard to direct/indirect questions. Interpretations are largely dependent on prosodic structures which needs to be investigated in detail.

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