



Article Mandarin Chinese Verbs as Verbal Items in Uyghur Mixed Verbs

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Abstract: This paper explores the pattern by which Mandarin Chinese verbs are used in Uyghur-Mandarin code-switching by native Uyghur speakers. In a number of language contact situations with similar verb mixing, foreign verbal items have been argued to be treated as nominal in the host language. However, I argue based on examples from personal communications with Uyghur speakers and my own elicitations that Mandarin verbs are still treated as a verbal category by Uyghur speakers for four reasons: (1) Mandarin verbs project their argument structure in Uyghur; (2) the Mandarin perfective aspectual particle *le* is uniquely included with a subset of Mandarin verbs; (3) the Uyghur verbalizing marker *-la* cannot attach to Mandarin verbs; and (4) the Uyghur accusative case marker *-ni* cannot attach to Mandarin verbs. The paper also discusses why it is not possible for Mandarin verbs to inflect with Uyghur morphology, and proposes a specific constraint on inflecting foreign verbs embedded in rich inflectional languages. The paper also poses the question of whether the availability of multiple light verbs to combine with foreign verbs correlates with the verbal status of foreign verbs in the host language.

Keywords: mixed verbs; light verbs; Uyghur; Mandarin; Chinese; code-switching; syntax; verb borrowing; loan verbs

1. Introduction

Among a variety of languages that find themselves in contact situations, there is a productive pattern to combine a foreign verb with a verb in the host language. The host language verb is immediately adjacent to the uninflected loan verb,¹ and receives tense marking and other inflection expected of verbs in the host language. Altaic languages Japanese and Korean both use verbs meaning 'do' to form compounds with loan verbs. (1a) shows the Japanese verb *suru* 'do' receiving tense inflection and combining with a loan verb said to be of Chinese origin, *aiseki* 'share a table' [3]. (1b) shows the Korean verb *hay* receiving tense inflection and combining with a loan verb said to be of the same origin and meaning, *hapsek*.

1. a. Kibo-wa Dana-to aiseki-shita NAME-TOP NAME-with table.sharing-DO.PST 'Kibo shared a table with Dana.'

¹ I will frequently use the term 'loan' verb for convenience and familiarity of reference to refer to a Mandarin verb that appears in a mixed verb within a sentence otherwise following Uyghur grammar rules. However, I do not consider these verbs true loans in the sense that they are verbs of foreign origin fully integrated into Uyghur grammar. Instead, I consider the Uyghur-Chinese mixed verbs under discussion a form of code-switching because they preserve Chinese phonetic characteristics and cannot directly inflect like native Uyghur verbs. See [1,2] and references therein for discussion of the difference between borrowing and code-switching.

 b. Kibo-nun Dana-wa hapsek-hayss-ta NAME-TOP NAME-with table-sharing-DO.PST 'Kibo shared a table with Dana.' Shim [3] (p. 7)

This pattern of a foreign verb plus an inflected native verb has been attested in Southeast Asia, throughout Central Asia, and in Europe [4]. It even surfaces in contact situations in Latin America [5].

In recent years, speakers of Uyghur, another Altaic language, have been using a similar strategy to import Mandarin Chinese verbs. (2) shows a Mandarin verb, *queren* 'confirm', followed by a Uyghur verb meaning 'do', *qil*. In this case, *qil* receives abilitative and negative suffixing, as well as the tense and person suffixing that is obligatory for any finite Uyghur verb.

 Bu ishni menmu queren qilalmaymen Bu ish-ni men-mu queren qil-ala-ma-y-men DEM matter-ACC 1SG-also confirm do-ABIL-NEG-NPST-1SG 'I can't confirm this matter either.'

The use of Mandarin verbs, like the broader phenomenon of code-switching between Uyghur and Mandarin, is increasingly common among Uyghurs in China's Xinjiang Uyghur Autonomous Region and other provinces of China, especially among university students. Primary motivations for code-switching include convenience, a desire to practice Chinese, and conformity to national trends [6].²

While contact and influence between Uyghur and Mandarin have been acknowledged for decades (see [7–9] for examples), the first study containing examples of mixed verbs, although they are not specifically identified therein, was (to my knowledge) Zaoreguli Abulimiti's Master's thesis about the code-switching strategies of bilingual Uyghurs [6]. More recently, Memtimin's survey of contact between Uyghur and neighboring languages explicitly categorizes strategies for using Chinese verbs in modern Uyghur, but does not delve into the grammatical status of the Chinese verbal material within the host language [10].

Loan verbs in Japanese and Korean have been analyzed as either having undergone nominalization or simply being reanalyzed as nouns [11,12]. This paper shows that Uyghur patterns with other Altaic languages in using a light verb strategy to import verbs, but that it patterns contra Japanese and Korean, and instead with a number of languages spoken between South Asia and Greece, in encoding agentivity with its light verbs among other characteristics. Based on these differences, I argue that the status of Chinese loan verbs in Uyghur mixed verbs is verbal rather than nominal. The inability of the verbal material to be directly inflected by the Uyghur grammar, then, may be the result of its foreign markedness conflicting with the native features of Uyghur inflectional heads.

This paper is organized as follows. After a note on methodology in Section 2, I give some background on the most fundamental morphosyntactic properties of Uyghur (as compared to Mandarin), introduce the function of light verbs within Uyghur grammar, and introduce Uyghur (aspectual) auxiliaries that will be frequently seen in example sentences in Section 3. In Section 4, I describe how one of two light verbs is used in mixed verbs depending on the argument structure of the Mandarin verb. Section 5 discusses the inclusion of the *le* aspectual marker in some Mandarin loan verbs. Section 6 explains how nominal, but crucially not verbal, loans can host a verbalizing suffix. I discuss how loan verbs cannot receive accusative case in Section 7. Section 8 gives a brief syntactic sketch of the constructions under discussion, and Section 9 concludes.

² Uyghur-Mandarin code-switching is deeply stigmatized within the Uyghur community as a harbinger of the loss of the Uyghur language and with it identity. This stigmatization makes code-switching data difficult to collect, as many native speakers deny its use when directly asked about it. However, I found that native speakers were willing to comment on the grammaticality (or lack thereof) of code-switching examples when presented with sentences to vet.

2. Methods

Because Uyghur-Mandarin mixed verbs are an understudied topic, few examples of full sentences containing such mixed verbs exist in publication (Memtimin lists several examples of Chinese verbs used in modern Uyghur, but does not provide complete sentences [10]). Unless otherwise specified, all positive examples used in this study came from a personal communication shared by Uyghur native speaker Zaoreguli Abulimiti [13], author of a sociolinguistic study of code-switching between Uyghur and Mandarin [6]. Negative examples came from my own elicitations. Additionally, all positive and negative examples used in this study were vetted by four Uyghur university students between ages 22–34 living in Beijing in 2016–2017.

Since the focus of the study is spoken Uyghur, some examples exhibit phenomena of modern Uyghur phonology like the dropping of /l/ and /r/ codas [14]. However, I found in elicitations and observations of Uyghur speakers that these consonants are not always entirely dropped in spoken Uyghur. In the vetted examples used here, I have tried to be faithful to the pronunciation I heard native speakers use when code-switching.

3. Morphosyntactic Properties of Uyghur and Mandarin

This section introduces a few of the most fundamental properties of Uyghur morphosyntax to provide the unfamiliar reader with a basic understanding with which to evaluate the code-switched sentences under discussion.

3.1. Uyghur Grammar Basics Contrasted with Mandarin

Like other Altaic languages, Uyghur canonically exhibits Subject-Object-Verb word order, as exemplified in (3).

 Men roman yazalmaymen Men roman yaz-ala-ma-y-men 1SG novel write-ABIL-NEG-NPST-1SG 'I cannot write a novel.' Tohti [15] (p. 355)

Also seen in (3) is the fact that Uyghur is an agglutinative language. Verbs host tense, and sometimes person, abilitative, negation, aspect, voice, and interrogative morphology among other things. The verb *yaz* 'write' in (3) is followed by abilitative, negation, tense and person suffixes. (4) shows a sentence in which the same verb *yaz* receives the passive suffix *-il*.

 On parche maqale yézildi. On parche maqale yaz-il-di-0 Ten CLF article write-PASS-PST-3 'Ten articles were written.' Tömür [16] (p. 393)

Uyghur also has a case marking system for nouns. While nominative case is unmarked, accusative case is marked on definite objects (*-ni* in (5a)) and unmarked on indefinite objects (absence of *-ni* in (5b)).

- a. Bazarda bir lughetni izdeymen
 Bazar-da bir lughet-ni izde-y-men
 Market-LOC one dictionary-ACC look.for-NPST-1SG
 'I will look for a (specific) dictionary at the market.' Engesæth et al. [17] (p. 68)
 - b. Bazarda lughet izdeymen
 Bazar-da lughet izde-y-men
 Market-LOC dictionary look.for-NPST-1SG
 'I will look for a (any) dictionary at the market.' Engesæth et al. [17] (p. 69)

Mandarin displays none of the properties described above. Word order is subject-verb-object (SVO), verbs do not inflect for tense or person, and there is no case marking. In (6), the verb *xiĕ* 'write' hosts no suffixes. Abilitative mood, which is expressed as a suffix in Uyghur, appears as a separate word *huì* before the main verb.

 Wŏ bú huì xiĕ xiăoshuō 1SG NEG ABIL write novel 'I cannot write a novel.'

Based on these most basic properties, the sentences analyzed in this paper clearly conform to Uyghur, not Chinese, grammatical rules. In Myers-Scotton's terms, Uyghur is the matrix language and Mandarin the embedded language [1]. That is to say, word order is subject-object-verb (SOV), verbs must be inflected, and definite nouns are case-marked.

The sole exception to the SOV word order is that some verb phrases borrowed from Mandarin preserve Mandarin grammar characteristics: verbs precedes objects, verbs are uninflected and objects are not marked for case. However, only in certain cases does the Mandarin object remain within the foreign verb phrase. Compare (7) with (8).

7.	U	manga	faduanxin	qildi.			
	U	men-ga	fa-duanxin	qil-di-0			
	3SG 1SG-DAT send-text.message do-PST-3						
'(S)he sent me a text message.' Anwar [18]							

8. *Mima*ni *chongxin shele* qilsam bolghudek. *Mima*-ni *chongxin she-le* qil-sa-m bol-gudek Password-ACC newly set-ASP do-COND-1SG be.good-MOD 'I should probably set a new password.'

In (7), the object *duanxin* 'text message' follows the verb, indicating it remains inside the Mandarin verb phrase.³ In (8), which is the far more typical case, the object *mima* 'password' is marked with Uyghur accusative case *-ni* and precedes the Mandarin verb, suggesting it is in the standard position for Uyghur definite objects and outside the verb phrase. I suggest that because *faduanxin* 'send text message' is such a commonly used Mandarin phrase, it is reanalyzed as a single lexical item in Uyghur.⁴ Another possibility, along the lines of [3], is that VO order is preserved in (7) because *faduanxin* being such a fixed expression in Mandarin blocks the object's movement out of the verb phrase to a preverbal position.

It is instructive to notice that Uyghur speakers find it acceptable–even better for some speakers–to rephrase (7) using the same lexical items, but with SOV word order, as shown in (9).

9.	U	manga	<i>duanxin</i> ni	fale	qildi.
	U	men-ge	<i>duanxin-</i> ni	fa-le	qil-di-0
	3SG	1SG-DAT	text.message-ACC	send-ASP	do-PST-3
	'(S)h	ne sent me	a text message.'		

However, rephrasing (8) with SVO order as in (10) is judged entirely unacceptable. This lends credence to the idea that (7)'s relative acceptability has to do with the ubiquity of the phrase *faduanxin*.

³ Memtimin [10] uses the same Mandarin verb phrase as the sole example of a Mandarin verb-object (VO) order verb phrase combining with *qil*. This author also provides examples of adverbs like *chongxin* 'again' being borrowed along with a verb as evidence of phrasal borrowing. However, I take the limited varieties of borrowed adverbs and the fact that only in *faduanxin* is VO order preserved to indicate that phrases are not actually borrowed. Instead, certain adverb-verb or verb-object combinations may be reanalyzed as compound verbs.

⁴ Packard [19] points out that many verb-object compounds can be considered lexical items within Mandarin proper, although criteria for word- vs. phrase-hood vary.

10.	* Chongxin	shele	mima	qilsam	bolghudek.
	Chongxin	she-le	mima	qil-sa-m	bol-gudek
	Newly	set-ASP	password-ACC	do-COND-1SG	be.good-MOD
	Intended	: 'I shoul	d probably set a	new password.	/

Having established that Uyghur is an agglutinative SOV language, I now turn to an important part of Uyghur monolingual grammar: the usage of light verbs.

3.2. The Use of Qil and Bol in Compound Formation

Two Uyghur verbs have been identified in the literature as being productively used to form compound verbs by combining with other roots: *qil* 'to do' and *bol* 'to become' [16,20]. In monolingual grammar, they can combine only with nominal or adjectival roots to yield agentive or nonagentive readings, as shown with the adjective *xoshal* 'happy' in (11a) and (11b), respectively.

- a. Xoshal qil Happy do 'To make (someone) happy.'
 - b. Xoshal bol Happy become 'To be(come) happy.'

Crucially, *qil* and *bol* do not combine with verbs in Uyghur monolingual grammar. Thus a sentence like (12) is not acceptable to native speakers.

12. * Oqu(-sh) qil Read-INF do Intended: 'To read.' Turdimemet [21]

The productive ability of these two light verbs to combine with (non-verbal) lexical material and encode agentivity has lead Tash and Zhang [22] to label *qil* and *bol* as instantiations of the light verb *v*. The light verb *v* is traditionally identified as the locus of agentivity in syntax, selecting the external argument and assigning it a thematic role when available. It can select a lexical verb phrase as its complement, or select an item of a different category and verbalize it. Light verbs *qil* and *bol* are strong candidates to fill this position because their selection corresponds with the presence or absence of an agent, and they do not independently contribute a predication to sentences. As *v* heads, *qil* has the grammatical meaning of 'do' and *bol* the grammatical meaning of 'become.'

I follow the assumption that *qil* and *bol* are instantiations of *v* and will refer to them as light verbs herein. Both verbs match Butt's criteria [23] for light verb status, because they enter into a monoclausal predicative relationship with another element (including non-verbal elements) that supplies the main predication, are form identical to an existing lexical verb, and can distinguish agentivity (to be further discussed in Section 4).

Light verbs as defined here are a different class of verb than the auxiliaries to be discussed in the following subsection.

3.3. Introduction to Aspectual Auxiliaries

The previous section showed that there are two verbs in Uyghur which combine with another element to form a predication. The meaning of the predication comes from the other element, rather than the light verbs themselves. There also exists in Uyghur a separate, limited, class of verbs that can form a predicate with another element and, in such cases, lack their own lexical meaning. This class only combines with verbs that host the verb-linking suffix *-ip* in lieu of tense, and it is the *-ip*-marked verb that provides the semantic predication of the clause. The other key difference between these verbs and the light verbs introduced in Section 3.2 is that they tend to provide aspectual meaning, among other things.

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To avoid confusion with the light verbs introduced in Section 3.2, I will follow Bridges [24] and call this new class of verbs auxiliaries. (13) and (14) are two examples of auxiliaries. Notice that in each case, the event described by the sentence comes from the meaning of the verb suffixed by -ip.⁵

- 13. Ders axirida uxlap qaldim Ders axir-i-da uxla-ip qal-di-m Class end-3.POSS-LOC sleep-LINK remain-PST-1SG 'I fell asleep at the end of the class.' Engesæth [25] (p. 39)
- 14. Tursun öyige pat-pat xet yézip turidu Tursun öy-i-ga pat-pat xet yaz-ip tur-y-du NAME home-3SG.POSS-DAT often letter write-LINK stand-NPST-3 'Tursun often writes letters home.' Tohti [15] (p. 360)

The auxiliary *qal* in (13) marks an involuntary change of state from non-sleep to sleep at the end of class. *Tur* in (14) indicates that the act of writing letters continues to happen with some regularity. Additionally, note that the dative suffix -GA has four possible realizations based on backness harmony of the vowel and backness and voicing harmony of the consonant. The four possibilities are summarized in Table 1.

Table 1. Harmonic variants of the -GA dative suffix.

	- Back	+ Back
- Voice	-ke	-qa
+ Voice	-ge	-gha

Somewhat confusingly, *bol* also has an aspectual auxiliary variant, as shown in (15a). Instead of encoding non-agentivity, the aspectual auxiliary *bol* acts as a telicity marker, indicating that an action has an endpoint. Without *bol*, as in (15b), the sentence states the speaker "did" their task, but does not emphasize the task's completion.

15.	a.	Bu	yilliq	wezipemni	qilip	boldum.
		Bu	yil-liq	wezipe-im-ni	qil-ip	bol-di-m
		DEN	1 year-AD	J task-1SG.POSS-A	ACC do-LINK	Cbecome-PST-1SG
		'I fin	ished doin	ng my task for this	year.' Maima	aitimin and Apizi [26]

b. Bu yilliq wezipemni qildim. Bu yil-liq wezipe-im-ni qil-di-m DEM year-ADJ task-1SG.POSS-ACC do-PST-1SG 'I did my task for this year.' Turdimemet [27]

I provide this background on the *-ip* + aspectual auxiliary construction to prevent confusion, because in many of the examples used in this paper, Uyghur verbs are inevitably followed by auxiliaries, including the aspectual *bol*.

With this background in mind, I proceed to discuss the non-nominal properties of the Mandarin verbal material imported into Uyghur.

⁵ I use the lexical meaning of the auxiliary in the gloss because I believe the relationship between the auxiliary and its lexical counterpart is significant and worth exploring, but it should be clear from the translations that the lexical meanings of the glosses are not salient in the readings of the complete sentences.

4. Qil and Bol with Mandarin Verbs

This section shows how the Uyghur light verb that combines with a Mandarin verb varies depending on the Mandarin verb's argument structure. This is not the case when light verbs combine with nominal material.

Recall that both the Japanese and Korean examples of mixed verbs in the introduction used a verb meaning 'do.' In both languages, only this light verb is combined with foreign verbs, regardless of the foreign verb's argument structure. So in Japanese, for example, the verb *suru* 'do' is used even in an unaccusative context like (16).

 Shiboo-suru Death-do 'To die.' Ogihara [28]

In Uyghur, on the other hand, a Mandarin verb can be followed by one of two light verbs: either *qil* (17a) or *bol* (18a).⁶ A clear pattern emerges when comparing the usage of *qil* versus *bol* in these constructions: *qil* is combined with transitive predicates whose subjects are agentive, while *bol* is combined with intransitive predicates whose subject is non-agentive.

In (17a) below, the subject of the transitive predicate is an agent responsible for causing the described action. The person who books an airline ticket online in (17a) is initiating and carrying out the event out of their own volition. For this reason, the same sentence is ungrammatical if *qil* is replaced with *bol*, as in (17b).

17.	a.	Feijipiaoni	wangshang dingle	qip	boldum
		<i>Feiji-piao-</i> ni	wangshang ding-le	qil-ip	bol-di-m
		Airplane-ticket-ACC	online	reserve-ASP	do-LINK become-PST-1SG
'I successfully reserved the airline ticket online.'					

b.	* <i>Feijipiao</i> ni	wangshang	dingle	bop	boldum
	<i>Feiji-piao-</i> ni	wangshang	ding-le	bol-ip	bol-di-m
	Airplane-ticket-ACC	online	reserve-ASP	become-LINK	become-PST-1SG
	Intended: 'I successf	ully reserve	ed the airline	ticket online.'	

In (18a) below, the drainage becomes clogged, but the drain is not agentive because external factors are responsible for bringing about this state. Thus the same sentence is ungrammatical when *bol* is replaced by *qil* in (18b).

18.	a.	Xiashuidao	dule	bop	qaptu
		Xiashuidao	du-le	bol-ip	qal-ptu-0
		Drainage	clog-ASP	become-IP	remain-PST-3
		'The draina	age has be	come clogg	ged.′

 b. * Xiashuidao dule qip qaptu Xiashuidao du-le qil-ip qal-ptu-0 Drainage clog-ASP do-IP remain-PST-3 Intended: 'The drainage has become clogged.'

As mentioned in Section 3.2, the agentivity-encoding light verb usage of *qil* and *bol* is productive throughout Uyghur grammar. The examples in (19) show how combining *qil* or *bol* with the same adjective *heyran* 'surprised' yields a reading in which the subject either caused someone to become surprised, or became surprised, respectively.

⁶ In (18a), *bol* is suffixed by the verb linker *-ip* and followed by an aspectual light verb. The final, aspectual, auxiliary verb is the one that hosts tense and person morphology. This is an example of the process described in Section 3.3.

- a. Bu ish uni heyran qildi
 Bu ish u-ni heyran qil-di-0
 DEM event 3SG-ACC surprised do-PST-3
 'This event surprised her/him.' Tash and Zhang [22] (p. 71)
 - b. U bu ishtin heyran boldi
 U bu ish-din heyran bol-di-0
 3SG DEM event-ABL surprised become-PST-3
 '(S)he was surprised at this event.' Tash and Zhang [22] (p. 71)

A significant difference between the examples in (19) and those involving Mandarin verbs, however, is that while the former can employ either of the two light verbs to create events that differ in agentivity, the latter can only employ one of the two light verbs depending on the Mandarin verb's argument structure.

The ability of Uyghur to employ light verbs meaning either 'do' or 'become' depending on the meaning of the verbal loan differs from Japanese and Korean, which only employ *su* or *ha*, respectively, to mean 'do.' The availability of 'become' as well as 'do' to combine with imported verbs has been attested in a number of non-Altaic languages, however, including Panjabi, Bengali, Pashto, Kurdish and Greek [4]. The reason why some languages employ only 'do' in bilingual light verb constructions while others also employ 'be(come)' (among other options) is not well understood, and ripe for future investigation.

Though the pattern is less robust than Mandarin-English mixed verbs across the Uyghur population, a native speaker reports that in dialogue between Uyghur students who have spent time in the United States, English verbs are imported into Uyghur following the same strategy. As examples (20) and (21) indicate, *qil* combines with agentive English verbs, and *bol* with non-agentive English verbs.

- 20. Mawu poluni biz *share* qilayli. Mawu polu-ni biz *share* qil-ayli DEM pilaf-ACC 1PL share do-1PL.IMP 'Let's share this pilaf.'
- 21. Men *feel sick* bop kettim. Men *feel sick* bol-ip ket-di-m 1SG feel sick become-LINK leave-PST-1SG 'I've started to feel sick (I became sick).'

This paper does not delve further into the issue of English-Uyghur code-switching, but it could be a fruitful topic for further research on mixed verbs among other aspects of code-switching.

This section has shown that Mandarin loan verbs combine with a different light verb depending on whether or not they take an agentive subject. The restriction on light verb combinations is different from nouns in monolingual Uyghur grammar, which can combine with either *qil* or *bol*. It is also different from loan verbs in Japanese and Korean, which combine with a verb meaning 'do' regardless of agentivity. I attribute the unique combinatory pattern of Uyghur mixed verbs to the verbal status of the Mandarin material.

5. The Inclusion of *le* in Verbal Loans

This section shows how the Mandarin aspectual marker *le* must be attached to the Mandarin loan verb if and only if the loan verb is monosyllabic. The requirement of bisyllabicity is uniquely imposed on Mandarin verbs in Uyghur grammar.

The exact function of the Chinese aspectual marker *le* has been the subject of rigorous debate and countless articles, but it has widely been considered a perfective marker when it appears within a verb phrase (see [29,30] and many others). In (22a), we see a sentence lacking *le* in which the predication

has an imperfective future reading. When *le* follows the predication as in (22b), however, the reading shifts to a perfective event that has already reached completion.

- 22. a. Wŏ hē shuí 1SG drink water 'I will drink water.'
 - b. Wŏ hē-le shui 1SG drink-ASP water
 'I drank water.' Zhang [31]

This *le* morpheme is sometimes included in verbal material imported into Uyghur, but its inclusion appears to be prosodically rather than aspectually conditioned. *Le* is only added to monosyllabic imports, and never added to multisyllabic imports.

For example, when the monosyllabic Mandarin adjective *ma* 'numb' is used in Uyghur, it must be followed by *le*. This is the case whether the reading of the sentence is perfective (23) or habitual (24).

- 23. Tilim *ma*(le)* bop qaldi. Til-im *ma-le* bol-ip qal-di-0 Tongue-1SG.POSS numb-ASP become-LINK remain-PST-3 'My tongue became numb.'
- 24. Achchiq tamaq yésem, tilim *ma*(le)* bop qalidu. Achchiq tamaq ye-sa-m til-im ma-le bol-ip qal-y-du Spicy food eat-COND-1SG tongue-1SG.POSS numb-ASP become-LINK remain-NPST-3 'My tongue becomes numb if I eat spicy food.'

In Mandarin, however, *mă* can be used as a predicate with or without *le*. When *le* appears postverbally, the sentence has a perfective reading (25a), while its absence (and the absence of other aspectual particles) results in a habitual/stative reading (25b).

- a. Wŏ de shétou má-le
 1SG GEN tongue numb-ASP
 'My tongue went numb.'
 - b. Zhè-ge ràng wǒ de shétou má DEM-CLF make 1SG GEN tongue numb 'This makes my tongue numb.' Zhang [32]

By contrast, it is not possible to add *le* to multisyllabic Mandarin verbs in Uyghur. Thus (26) is not grammatical if *le* is added to the bisyllabic Mandarin verb *queren* 'confirm'.

26.	Bu	ishni	queren(*le)	qilmidim
	Bu	ish-ni	queren-le	qil-ala-ma-di-m
	DEM	I matter-ACC	confirm-ASF	do-NEG-PST-1SG
	'I did	not confirm	this matter.'	

In Mandarin, however, *le* can follow the verb *quèrèn* to yield a perfective reading (27). When the reading is not perfective, as in imperfective future example (28), *le* does not appear.

- Wŏ dă diànhuà quèrèn-le.
 1SG hit telephone confirm-ASP 'I called and confirmed.'
- Wŏ lái dă diànhuà quèrèn.
 1SG come hit telephone confirm 'I'll call to confirm.' Zhang [32]

It seems clear, then, that the inclusion of *le* with Mandarin verbs is based on the syllable count of the verb rather than aspectual considerations, as also pointed out by Memtimin [10]. It is worth noting, however, that this prosodic requirement is unique to Mandarin loan verbs. In monolingual Uyghur grammar, light verbs can combine with a monosyllabic, but non-verbal, item to form a compound verb. The entries in (29) show a monosyllabic adjective *mest* 'drunk' combining with *qil* and *bol* without the addition of an extra syllable.

29. a. Mest bol Drunk become 'To become drunk.'

> b. Mest qil Drunk do 'To make drunk.' [33]

The difference between the above paradigm and light verb constructions would seem to be either that the dispreference for monosyllabic units is a recent development in Uyghur grammar, or that the dispreference is only for monosyllabic items that are verbal.

Monosyllabic Mandarin nouns never occur with le in Uyghur grammar, although they are always followed by some Uyghur grammatical marker like a case suffix in the corpus. Thus the indirect object ka 'card' in (30), for example, is followed by the dative case marker -ga.

30. *Ka*gha 300 koy *dale* qiliwetti *Ka*-ga 300 koy *da-le* qil-wet-di-0 Card-DAT 300 yuan hit-ASP do-complete-PST-3 '((S)he/they) put 300 yuan on the card.'

Additionally, recall from the previous section that in the Uyghur-English mixed verb example (20), a monosyllabic English verb, *share*, was combined with *qil* without any additional morphemes. This suggests that the addition of *le* is specific to Mandarin verbs, perhaps because of its close association with verbal items in the minds of Uyghur-Chinese bilingual speakers (an early system morpheme in the sense of Myers-Scotton's 4-M model [1]).

I tentatively conclude that the inclusion of *le* with otherwise monosyllabic loans is uniquely required of Mandarin verbal morphemes for prosodic conditions, and that it is chosen as a prosodic filler because of its close association with Mandarin verbs. The reason such a requirement is imposed on Mandarin verbs is unclear, but at a minimum it marks Mandarin verbs as belonging to a different class than nominal material in Uyghur-Mandarin code-switching.

6. The Use of Verbalizing Markers

In this section, I show that verbs borrowed from Mandarin cannot undergo the same verbalization process as borrowed nouns in Uyghur.

Nouns can be productively converted into verbs in Uyghur by adding the verbalizing suffix *-la* [16].⁷ For example, combining the noun *terbiye* 'training' with *-la* creates the verb *terbiyele* 'to train' [16] (p. 229).

Mandarin nouns can also participate in this process. Usually, the *-la*-suffixed loan is followed by the verb linker *-ip* and an aspectual auxiliary (of the type described in Section 3.3) that hosts tense and person morpshology. In (31), *-la* is added to *zan* 'approval', and linked with *-ip* to the light verb

⁷ The vowel in *-la* undergoes backness harmony conditioned by the root to which it attaches, resulting in the harmonic alternant *-le*. The vowel also raises to /i/ if the syllable loses stress due to other suffixes causing resyllabification. Both are standard processes for suffixes in Uyghur [17].

qoy 'to put'. In this case, *qoy*'s function is to show that giving a like on social media is a polite action whose result will please somebody.

31. Zanlep qoyunge! Zan-la-ip qoy-ing-e Approve-VBLZ-LINK put-2SG.IMP-EMPH 'Give it a like!'

In (32), *-la* is added to *weixin*, the popular Chinese social media app known in English as 'WeChat.' This newly formed verb is then suffixed by reciprocal marker *-sh* for a reading in which two parties use WeChat to contact each other, and it is linked by *-ip* to the aspectual light verb *tur*, which indicates that action of using WeChat (to keep in touch) should continue habitually.

32. Weixinliship turayli Weixin-la-sh-ip tur-ayli WeChat-VBLZ-RECP-LINK stand-1PL.IMP 'Let's keep in touch with WeChat!'

While most examples I have encountered use an aspectual auxiliary to host tense morphology, it is also acceptable for tense and person morphology to attach directly to *-la*. Sentence (32), for example, could be expressed grammatically (minus the aspectual information contributed by *tur*) as (33).

 Weixinlishayli! Weixin-la-sh-ayli WeChat-VBLZ-RECP-1PL.IMP 'Let's contact each other with WeChat!'

The examples shown in this section have all involved nouns suffixed by the verbalizing marker *-la*. It is worth noting, however, that these nouns can also be left bare and combined with *qil* or *bol*, like the examples of Section 4. Most speakers accept (34), in which the unsuffixed noun $w\bar{e}ixin$ 'WeChat' is followed by light verb *qil*, as a way of expressing the same meaning as (32).

```
34. Weixin qilip turayli
Weixin qil-ip tur-ayli
WeChat do-LINK stand-1PL.IMP
'Let's keep in touch with WeChat!' (same as (32))
```

This fact is not surprising, since native nouns are known to combine productively with light verbs in Uyghur, as mentioned in Section 3.2.

What is unexpected, if we assume that Mandarin verbs are treated as nominal in Uyghur grammar, is that loan verbs of the type seen in Section 4 cannot be suffixed with -la.⁸ (35) is an attempt to express the meaning of (2) using the -la strategy, and the result is ungrammatical.

35.	* Bu	ishni	menmu querenliyelmeymen
	Bu	ish-ni	men-mu <i>queren</i> -la-ala-ma-y-men
	DEN	1 matter-A	CC 1SG-also confirm-VBLZ-ABIL-NEG-NPST-1SG
	Inter	nded: 'I can	I't confirm this matter either.' (same as (2))

The fact that Mandarin verbs cannot be host to a verbalizing suffix that attaches to nouns is clear evidence that these borrowed items are not being treated as nominals in Uyghur grammar. Next I will turn to one final piece of evidence that Mandarin verbal imports are not treated as nominal in Uyghur grammar: accusative case marking.

⁸ Memtimin [10] provides a few examples of verbs appearing to take the *-la* suffix. However, the only example whose origin is discussed (*dang-la-t* be-VBLZ-CAUS 'to show off') appeared in the 18th century, suggesting an older code-switching strategy that is no longer productive in modern Uyghur grammar. All listed examples involve monosyllabic Chinese verbs, which leads me to suspect that *-la* might be a reanalysis of *le* at a later stage of proper borrowing.

7. Accusative Case

In this section, I show that Mandarin verbs cannot be marked for accusative case by the Uyghur verb *qil*, while true nominals can.

In both Japanese and Korean, the imported verb can optionally take accusative case like any direct object in the grammar. (36) shows examples of the same Chinese verbal loan from (1) receiving accusative case from the 'do' light verb in Japanese and Korean, respectively.

- 36. a. Kibo-wa Dana-to aiseki-o shita NAME-TOP NAME-with table.sharing-ACC DO.PST 'Kibo shared a table with Dana.'
 - b. Kibo-nun Dana-wa hapsek-ul hayss-ta NAME-TOP NAME-with table-sharing-ACC DO.PST-DECL 'Kibo shared a table with Dana.'

In Uyghur, on the other hand, it is not possible for the foreign verb to receive accusative case. A sentence like (37), in which the Mandarin verb *queren* 'confirm' has accusative case marker *-ni*, is ungrammatical whether or not the object also has accusative case.

37. * Men bu ish(ni) querenni qilmidim Men bu ish-ni queren-ni qil-ma-di-m
1SG DEM matter-ACC confirm-ACC do-NEG-PST-1SG Intended: 'I couldn't confirm this matter.'

The ungrammaticality of (37) is significant for two reasons. First, Uyghur nouns that form compound verbs with *qil* can receive accusative case from *qil* for a specific action reading.

 Toyni qildim. Toy-ni qil-di-im Wedding-ACC do-PST-1SG 'I had/did the wedding.' [34]

Second, nouns borrowed from Mandarin can be assigned accusative case from Uyghur verbs or even the Mandarin verbal import, as shown with *feijipiao* 'airline ticket' in (39).

39. *Feijipiao*ni *wangshang dingle* qilip boldum *Feiji-piao*-ni *wangshang ding-le* qil-ip bol-di-m Airplane-ticket-ACC online reserve-ASP do-LINK become-PST-1SG 'I successfully reserved the airline ticket online.'

The fact that Mandarin verbs cannot receive accusative case, then, makes them different from both Uyghur and borrowed Mandarin nouns. Having presented arguments for the verbal status of Mandarin verbs borrowed into Uyghur, I proceed to briefly sketch a syntactic treatment of the constructions under discussion.

8. Syntactic Analysis

Thus far this paper has shown that Mandarin verbs are treated as verbal rather than nominal in code-switched Uyghur grammar. When nominal material is borrowed, it can be converted into a verbal element through the use of a verbalizing suffix, *-la*. Because *-la* occurs in complementary distribution with *qil* and *bol*, I propose that they are three different flavors of the same syntactic head: the light verb head v [35]. This suggestion follows Shim [3], who also treats verbalizing markers as v heads. The difference in the behavior of these v heads is that *-la* selects a complement with a [+ nominal] feature, while *qil* and *bol* do not place category-of-speech restrictions on their complements.

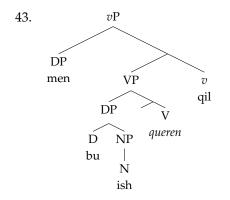
(41) shows the vP structure (that is, the syntactic structure up to the phrase headed by the light verb, which in this case is *-la*) of (33), repeated here as (40). The v head *-la* selects the Mandarin noun *weixin* as a complement.

40. Weixinlishayli! Weixin-la-sh-ayli WeChat-VBLZ-RECP-1PL.IMP 'Let's contact each other with WeChat!'

41. vP N v weixin -la

While *qil* 'do' and *bol* 'become' can select a complement of any lexical category, their difference is that *qil* requires an external argument in its specifier, while *bol* does not. Thus the internal, non-agentive argument becomes the subject in a sentence with light verb *bol*. (43) shows the *v*P structure of (2), repeated here as (42), in which the Mandarin V head *queren* 'confirm' projects a lexical verb phrase (VP) selected by *v* head *qil*. The agent *men* 'I' is merged as the specifier of *qil*. The object *bu ish* 'this matter' is merged as the specifier of *queren*.⁹

42.	Bu	ishni	menmu	queren	qilalmaymen
	Bu	ish-ni	men-mu	queren	qil-ala-ma-y-men
	DEM	l matter-ACC	1SG-also	confirm	do-ABIL-NEG-NPST-1SG
	'I can	't confirm th	is matter e	either.'	

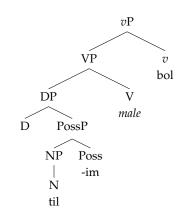


Finally, (45) shows the vP structure of (23), repeated here as (44). Here the Mandarin verb *male* projects a VP that is complement of v head *bol*. The non-agentive subject *tilim* 'my tongue' is merged as the specifier of *male*, rather than of *bol*.

44.	Tilim	male	bop	qaldi.	
	Til-im	ma-le	bol-ip	qal-di-0	
Tongue-1SG.POSS numb-ASP become-LINK remain-1					
	'My tongue becam	e numb.'			

⁹ In sentence (42), the object *bu ish* 'this matter' precedes the subject *men* 'I' in linear order and is suffixed with the accusative case marker *-ni*. This is because *bu ish* is topicalized in this sentence. Additionally, Uyghur objects are hypothesized to move out of *v*P to a higher position to receive accusative case. Tree (43) only intends to show the structure within *v*P prior to other operations like case assignment and topicalization.

45.



Given the claim that Mandarin loans can be verbal in Uyghur grammar, a natural question to ask is, why cannot tense/person morphology attach directly to Mandarin loan verbs? Under minimalist assumptions, all lexical verbs attach to a v head that can license an external argument and assign accusative case, but this head is hypothesized to usually be covert. The question, then, is why do Mandarin verbs require an overt light verb head to host tense/person morphology?

Bhatia and Ritchie [36] pose this question about a similar paradigm in Hindi. When Hindi speakers switch to an English verb, the English verb cannot directly inflect for tense, person and gender. This is shown with the English verb *choose* in (46a). Instead, a light verb *kar* meaning 'do' is used (46b) to host inflectional morphology, similar to the paradigm in Uyghur.

- 46. a. * merii patnii saaRii choose -egii my wife Saree choose FUT.3SG.FEM Intended: 'My wife will choose a Saree.'
 - merii patnii saaRii *choose* kar -egii my wife Saree choose do -FUT.3SG.FEM 'My wife will choose a Saree.'

To explain the inability of a foreign verb to host Hindi suffixes, Bhatia and Ritchie [36] use the Functional Head Constraint (FHC) [37], which states that a complement selected by a functional head must match the functional head's features. The Functional Head Constraint assumes that heads bear a feature marking their language of origin, and incompatibility can arise when a functional head selects a complement with a different language feature. For example, Belazi et al. [37] claim that the FHC is responsible for the [+ English] determiner *a* (a functional head)'s inability to select the [+ Spanish] complement *demonio* 'devil' in the English-Spanish code-switched sentence (47).

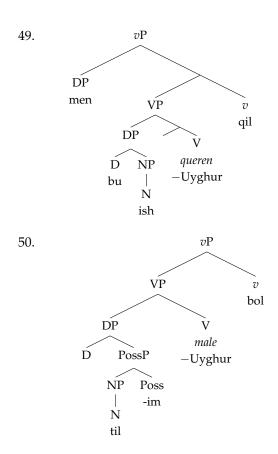
47. * He is a *demonio* 'He is a devil.' Belazi et al. [37] (p. 227)

In the case of English verbal imports in Hindi, they argue that the functional head T(ense) with a [+ Hindi] feature cannot select an English verb phrase complement with a [- Hindi] feature. To save the derivation, Hindi grammar inserts the light verb *kar* 'do' to be the complement of tense.

While the mixed verb paradigm of Hindi-English is quite similar to that of Uyghur-Mandarin, the FHC makes incorrect predictions about what is allowed in Uyghur-Mandarin code-switching. For example, a Uyghur determiner like *mawu* 'this' can select a Mandarin noun like *yinliao* 'beverage' as a complement, as demonstrated in (48). In this same sentence, *yinliao* is also suffixed with Uyghur accusative case, and the Mandarin noun *zhongyangdianshitai* 'China Central Television' with Uyghur locative case. Both of these case markers presumably involve a relation between a Uyghur functional head and a Mandarin lexical item.

48.	Mawu <i>yinliao</i> ni	zhongyangdianshitaide	guanggao	qighan
	Mawu <i>yinliao-</i> ni	zhongyang-dianshi-tai-da	guanggao	qil-gan
	DEM beverage-ACC China-television-station-LOC advertisement do-PERF 'This beverage has been advertised on China Central Television.'			

With the FHC untenable for Uyghur, I can only posit a specific constraint about verbal inflection for the time being. As stated in the introduction, it appears to be the case cross-linguistically (although more research is necessary) that foreign verbs do not inflect within the host language when they are still regarded as foreign by native speakers. My observation is that when foreign verbs are used in a code-switching context in a host language with rich inflection, overt light verbs are inserted that can be inflected like normal verbs and are not sensitive to taking a foreign lexical item as a complement in. Intuitively, it may be that verbal inflections are perceived as more intrinsically part of a well-formed verb than case marking is part of a well-formed noun. I propose a Principle of Foreign Verb Inflection, which requires that overt light verbs be added when lexical verbs are marked as foreign, and represent this principle in the case of Uyghur-Chinese mixed verbs in the form of language features on foreign verbs. This is shown in (49) and (50), which are slight modifications of respective trees (43) and (45).



While there is no unified syntactic theory of code-switching, it is generally agreed that foreign items at least have a marked status in cases of code-switching (see [1,2] and references therein for discussion). The Principle of Foreign Verb Inflection is a way of formalizing the requirement of light verbs to inflect in place of foreign verbs when the host language in a code-switching context is inflectional.

9. Conclusions

In this paper, I have introduced the general pattern by which Mandarin verbs enter modern Uyghur grammar: by combining with a Uyghur light verb *qil* or *bol* that hosts all inflection. I also presented a few arguments for considering the borrowed material to be verbal rather than nominal. First, the Uyghur light verb used depends on the argument structure inherent to the borrowed verb. Second, the Mandarin aspect marker *le* is added to monosyllabic verbs to create bisyllabic units only for verbs. Third, the Mandarin verb cannot receive a Uyghur verbalizing suffix like Mandarin nouns can. Finally, foreign verbs cannot receive the accusative case marker *-ni*, while both native and foreign nominal material can.

I also addressed the question of why verbal imports are not directly inflected for tense and person. I suggested that in the face of a constraint on the relationship between native functional heads and foreign lexical items, overt light verb heads are not sensitive to the language feature of their complement and thus serve as a buffer between the two.

Importantly, not all languages that import verbs use the light verb strategy discussed here. Yip and Matthews [38] report that English verbal items frequently appear in Cantonese speech, and can be combined with a variety of Cantonese particles, without the use of light verbs. The authors raise the question of whether the use of light verbs to create mixed verbs is typologically conditioned, limited to SOV matrix languages. However, the use of Spanish hacer 'do' to create mixed verbs in Spanish-English code-switching [5] means the construction can also arise in SVO languages. Muysken [4] also considers the idea of certain languages being typologically poised to employ the light verb construction, but dismisses the idea because not all languages with great typological similarity employ the same verb adoption strategy, and vice versa. Nevertheless, a correlation may still exist between the ability to inflect foreign verbs and typological similarity of the two languages in question. In her survey of language contact affecting Uyghur, Memtimin [10] finds that while verbs from Mongolian, another Altaic language, inflect directly in Uyghur, an analytic strategy similar to what I have described in this paper is also used with verbs of Persian, Arabic and Russian origin. In such cases, however, the borrowed material appears to always be nominal. A question that arises from this study that can be tested across languages that do use the light verb strategy: whether the availability of both the 'be' and 'do' light verbs in mixed verbs is characteristic of languages that treat verbal imports as verbal within their own grammar, and conversely the availability of only 'do' is characteristic of languages that nominalize (or reanalyze) their verbal imports.

This paper merely represents a preliminary study of an understudied phenomenon. Previous work on other language contact situations has suggested that mixed verbs are a construction most fully available to adult multilingual speakers [4,5]. Continued study of natural speech data in this Uyghur-Mandarin bilingual context, from speakers of different age groups and social classes, could provide a helpful point of comparison. The study can also potentially shed light on the rules allowing, but also limiting, structural hybridity in mixed verbs and code-switching more generally [39]. For example, the data presented here shows the unique mixing of Uyghur's agentive/non-agentive distinction with Mandarin's *le* morpheme, but I have not compared this hybridity to that of other verb mixing situations. It is my hope that having described the Uyghur-Mandarin verbal code-switching pattern here will ultimately contribute to a greater understanding of the cross-linguistic mixed verbs phenomenon and its relationship to language contact and acquisition.

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Abbreviations

Glossary of Linguistic Codes Used in the Glosses

1PL 1st person plural 1SG 1st person singular 3 3rd person ABIL Abilitative marker ACC Accusative case ADJ Adjectival marker ASP Aspect marker CLF Classifier COND Conditional mood DAT Dative case DECL Declarative mood DEM Demonstrative EMPH Emphatic marker FEM Female gender FUT Future tense GEN Genitive case IMP Imperative mood LINK Verb linking suffix LOC Locative case MOD Mood marker NEG Negative marker NPST Non-past tense PASS Passive voice PERF Perfect tense POSS Possessive marker PST Past tense RECP Reciprocal voice TOP Topic marker VBLZ Verbalizer

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