Sentence-Final Aspect Particles as Finite Markers in Mandarin Chinese Niina Ning Zhang June 9, 2017 Comments are welcome

1. Introduction

"Finiteness is one of those notions that is used by everybody and understood by nobody." (Klein 2009: 336) Worse than that, it is not clear how to distinguish finite clauses from nonfinite ones in languages such as Mandarin Chinese (Chinese hence). Language acquisition studies have shown that finiteness distinction plays an important role in first and second language acquisition (e.g., Dimroth & Lasser 2002, Gretsch & Perdue 2007, Yang & Yang 2015). However, Klein's above statement still remains true, especially for Chinese. If there is no finiteness distinction in Chinese, as claimed by Y. Huang (1994) and Hu et al. (2001), there will be a serious challenge to the claim that finiteness distinction is part of Universal Grammar (Rizzi 1997: 284; Klein 2006, 2009; Ritter & Wiltschko 2014; Wiltschko 2014).

Various efforts have been made to find possible diagnoses for finiteness distinction in Chinese. For instance, it has been realized that an aspect suffix with a verb is not a finite marker (Li 1990: 19), and a non-epistemic modal is not, either (Zhang 1997: 73-75). Moreover, a special morphological form of a verb in a polar question (i.e., the so-called A-not-A form, see 4.2.1) has also been ruled out as a finite marker (Hu et al. 2001: 1139). A further effort has been made to claim that in Chinese, a tensed, and thus finite, clause means a complete sentence, and various strategies might be used to achieve this status, including the occurrence of an adverb such as yizhi 'continuously', a coordinate construction, and an adverbial clause (Tsai 2008). However, sentence incompleteness may have various reasons, not necessarily to be related to the finiteness distinction. Even a finite sentence may sound incomplete in tense languages such as English. For instance, the adverb slowly is necessary in John walked slowly, unless in a contrastive context (also see Grimshaw & Vikner 1993, Feng 2009: 223). Moreover, coordination is not able to change a nonfinite clause into a finite one. On the other hand, Lin (2011, 2015) discusses the interactions between modals and the sentence-final le (S-le), concluding that the occurrence S-le marks the finite status of the clause. One will see that this paper reaches a similar conclusion for S-le, with a more systematic argumentation.

In this paper, I address a newly discovered contrast in Chinese, which may lead us to not only the finiteness distinction in Chinese but also a new understanding of the distinction in general. The discovery is the restrictions on the distribution of sentence-final aspect particles (SFAPs), such as *ne* in (1a), *laizhe* in (1b), and S-*le* in (1c).^{1,2}

(1) 阿傑 呢. a. 寫著 作業 Ajie xie-zhe zuoye ne. Aiie write-SMLT homework **SFAP** 'Ajie {is/was} writing the homework.' 阿傑 b. 寫著 作業 來著.

Abbreviations: CL: classifier; DE: modification/nominalization; EXP: experiential aspect; GEN: generic; HOP: higher-clause-oriented property; INCH: inchoative; INT: interjection; PRF: perfective aspect; Q: question; RT: reference time; SMLT: simultaneous aspect; SOP: speaker-oriented property; SpOA: speaker-oriented adverb; UT: utterance time; SFAP: sentence-final aspect particle; SFP: sentence-final particle. The verbal suffix -zhe and the preverbal zai/zhengzai are labelled as SMLT, rather than progressive or imperfect markers. Progressive is restricted to combining with dynamic eventualities (e.g., Ramchand & Svenonius 2014: 153), and imperfect is for telic eventualities. Examples such as (3) show that these markers can be used in atelic stative expressions.

² The SFP *ne* also has non-temporal marker uses. For instance, it can be a question marker, as in (5c) (Simpson & Wu 2002: 297 fn. 9); and can be in construal with {*cai/ke/hai*}. *Ne* in the latter use is analyzed as a contrastive topic marker in Constant (2014: Ch. 6). S-*le* also has a non-temporal use, e.g., when it is in construal with *tai* 'too' (e.g., Chang 2013). I do not discuss non-temporal uses of *ne* and S-*le* in this paper.

Ajie xie-zhe zuoye laizhe.
Ajie write-SMLT homework SFAP
'Ajie was writing the homework.'

c. 阿傑 寫完 作業 了.
Ajie xie-wan zuoye le.
Ajie write-finish homework SFAP
'Ajie has finished writing the homework.'

The three SFAPs are identified as low-levelled sentence-final particles in Zhu (1982: 208), since they may be followed by a sentence-final particle (SFP) of another type. For example, in (2a), the SFAP *le* precedes the question particle *ma*; and in (2b), the reversed order of the two causes the unacceptability.

(2) 下 T 嗎? 亙 a. Xia le ma? yu fall rain **SFAP** Q 'Is it raining?' *下 嗎 了? b. 亙 le? *Xia yu ma fall rain Q **SFAP**

Although SFAPS are called tense-aspect-markers in Zhu (1982: 209 biao shi-tai 'express tense-aspect'; adopted by Paul 2015: 249), they do not form a tense system. Ne is compatible with all three deictic temporal expressions, xianzai 'now', a time simultaneous with the utterance time (UT), zuotian-zhongwu 'yesterday noon', a time before the UT, and mingtian-zhongwu 'tomorrow noon', a time after the UT, as shown in (3a), (3b), and (3c), respectively. Like ne, S-le is also compatible with all the three deictic temporal expressions, as shown in (4a), (4b), and (4c). When Li and Thompson (1981: 290) describe S-le, they point out that "the time frame, as we have seen, may be present, past, or future".

(3) 阿傑 現在 正 忙著 呢. a. Ajie xianzaizheng mang-zhe ne. Ajie now SMLT busy-SMLT **SFAP** 'Ajie is busy right now.' 昨天中午 b. 阿傑 正 忙著 呢. Ajie zuotian-zhongwu zheng mang-zhe ne. Ajie yesterday-noon SMLT busy-SMLT **SFAP** 'Ajie was busy yesterday noon.' 明天中午 阿傑 正 忙著 呢. 別 打攪 他. c.

³ Erlewine (2017) claims that *eryi* 'only' is included in this layer; however, whenever *eryi* occurs, the focus marker *zhi* 'only', or *zhibuguo* 'only', or *jinjin* 'only' may also occur, or vice versa (Lü et al. 1999: 195). Chinese has many functional element pairs, called *guanlian ciyu* 'correlating expression', and it is possible for only one element of such a pair to surface in a clause. Similar expressions are also found in other languages (Hole 2017). SFAPs do not have this property. Also, no two SFAPs may occur in a row (see (61)), but *eryi* may be next to a SFAP, as seen in (i). I do not discuss *eryi* in this paper.

(i) a. 他(只不過) 想 而已. 家 家 了 他(只不過) 來著 而已. Ta (zhibuguo) xiang jia Ta (zhibuguo) xiang laizhe le eryi. jia eryi. he only miss home he only miss only **SFAP** only home **SFAP** 'He just misses home.' 'He just misses home.'

		Ajie mingt	ian-zho	ngwu	zheng mang-zhe		zhe	ne.	Bie	dajiao ta.
		Ajie tomor	row-no	on	SMLT	busy-	SMLT	SFAP	not	disturb he
		'Ajie will be	busy tor	norrow	noon. I	Don't di	sturb hi	m.'		
(4)	a.	現在	阿傑	在	北京		了.		(Wu 2	004: 286)
		Xianzai	Ajie	zai	Beijin	g	le.			
		now	Ajie	be	Beijing SFAP		SFAP			
		'Ajie is in Be	'Ajie is in Beijing now.'							
	b.	昨天中午		阿傑	就	在	北京	北京		
		Zuotian-zhon	gwu	Ajie	jiu	zai	Beijin	g	le.	
		yesterday-noo	on	Ajie	then	be	Beijin	g	SFAP	
		'Ajie was in I	Beijing	yesterda	ay noon					
	c.	明天中午		阿傑	就	在	北京		了.	
		Mingtian-zhongwu Ajie		Ajie	jiu	zai	Beijin	g	le.	
		tomorrow-no	on	Ajie	then	be	Beijin	g	SFAP	
		'Ajie will be	ng tomo	rrow no	oon.'					

Since *ne* and S-*le* are compatible with all three deictic temporal expressions, their uses are not affected by the UT, and thus they are not tense markers. As for *laizhe*, it takes a past temporal expression, such as *zuotian-zhongwu* 'yesterday noon' in (5a), as its possible reference time. It is not compatible with any non-past temporal expressions, such as *xianzai* 'now' and *mingtian-zhongwu* 'tomorrow noon' in (5b), or any future context, as shown in (5c).

(5)	a.	昨天中午		阿傑	在	北京		來著.	
		Zuotian-zhong	gwu	Ajie	zai	Beijing	g	laizhe.	
		yesterday-noo		Ajie	be	Beijin	g	SFAP	
		'Ajie was in E	Beijing y	esterda	y noon.	,			
	b.	*{現在/明天中	中午}			阿傑 在		北京	來著.
		*{Xianzai/Mi	ngtian-z	hongw	u	Ajie zai		Beijing	laizhe.
		now/tomorro	w-noon	1		Ajie	be	Beijing	SFAP
	c.	我們	未來	的	孩子	ПΠ	甚麼	{	*來著/呢}?
		Women	weilai	de	haizi	jiao	shenm	en {	*laizhe/ne}?
		we	future	DE	child	call what			SFAP/Q
		'What will ou	r future	child b	e called	?'			

However, *laizhe* is not a tense marker (contra Y. Zhang 2001). In English, *-ed* is a past tense marker, because it contrasts with a null ending (as well as the suffix *-s* that appears on 3rd person singular verbs in the present tense; cf. Kayne 2000: 188). In other words, "present tense in English is not overtly marked, but is strictly defined in opposition to past tense" (Ritter & Wiltschko 2014: 1340). A different situation is seen in the Halkomelem suffix *-lh*, which denotes a past time, and is optionally attached to a verbal category, as shown in (6). Since its absence does not trigger a non-past interpretation, as seen in (6b), the suffix is not a tense marker (Ritter & Wiltschko 2014: 1332). Similarly, in Chinese, the absence of *laizhe* is not exclusively non-past, as seen in (7b). Without a pattern in contrast to *laizhe*, no tense system can be established. Instead, since the RT of a predication can be any time, it is possible that the RT of a *laizhe* clause is marked: it is prior to the UT.

(6) a. flh qw'eyílex tútl'ò. (Halkomelem)
AUX-PAST dance he
'He was dancing.'

- b. í qw'eyílex tútl'ò. AUX dance he 'He {is/was} dancing.'
- (7) a. 阿傑 在 跳舞 來著.
 Ajie zai tiaowu laizhe.
 Ajie SMLT dance SFAP
 'Ajie was dancing.'
 - b. 阿傑 在 跳舞.
 Ajie zai tiaowu.
 Ajie SMLT dance
 'Ajie {is/was} dancing.'

In English, the complementizer *that* introduces a finite embedded clause, whereas the complementizer *for* introduces a nonfinite one. In this paper, SFAPs are argued to be finite complementizers in Chinese, although they may occur in either matrix or embedded clauses.

In Section 2, I present eight types of embedded clauses in which SFAPs may not occur, and in Section 3, I show how these types of clauses exhibit properties of nonfinite clauses in other languages, in contrast to the types of clauses that allow SFAPs, which exhibit properties of finite clauses in other languages. After recognizing the existence of finiteness distinction in Chinese, I go on to discuss the syntactic properties of the finite markers in the language in Section 4, explaining why SFAPs do not occur in all finite clauses, and why they should be analyzed as complementizers, as assumed generally. In Section 5, I probe the finiteness distinction as a language universal, introducing Klein's (2009) claim that the distinction is a language universal not seen in other cognitive systems. I conclude the paper in Section 6.

2. A contrast in the distributions of SFAPs

2.1 Possible hosting clauses

All three SFAPs may occur in matrix clauses, as shown in (1) above. They may also occur in the complement clause under verbs such as *zhidao* 'know', *tingshuo* 'hear', *juede* 'think', and *guji* 'guess', as shown in (8a-c), and in the complement clause of a noun, as shown in (8d).

- (8) 我 知道 [阿傑 寫著 作業 呢]. a. Wo zhidao [Ajie xie-zhe zuove nel. know Ajie write-SMLT homework SFAP 'I know Ajie {is/was} writing the homework.'
 - 知道 「阿傑 寫著 b. 我 作業 來著]. Wo zhidao [Ajie xie-zhe zuoye laizhe]. know Ajie write-SMLT homework Ι SFAP 'I know Ajie was writing the homework.'
 - c. 我 知道 [阿傑 寫完 作業 了].
 Wo zhidao [Ajie xie-wan zuoye le].
 I know Ajie write-finish homework SFAP
 'I know that Ajie has finished writing the homework.'
 - [阿傑 找到 d. 工作 的 消息 了1 zhaodao [Aiie gongzuo lel xiaoxi de find iob SFAP DE news 'the news that Ajie has found a job'

SFAPs may also occur in subject clauses, as seen in the examples in (9), and some types of adverbial clauses, such as the conditional adverbial clauses in (10), and the reasonal adverbial clauses in (11).

- (9) 幫 很 高興. a. 「阿傑 在 弟弟 呢] 讓 我 didi [Aiie zai bang nel hen gaoxing. rang wo brother SFAP glad Aiie SMLT help make I very 'That Ajie {is/was} helping his brother made me very glad.'
 - [阿傑 在 幫 弟弟 來著]讓 很 高興. b. [Ajie zai bang didi laizhe] rang wo hen gaoxing. Ajie SMLT help brother SFAP make I glad very 'That Ajie was helping his brother made me very glad.'
 - c. [阿傑 找到 工作 了] 讓 我 很 高興. [Ajie zhaodao gongzuo le] rang wo hen gaoxing. Ajie find job make I SFAP very glad 'That Ajie has found a job made me very glad.'
- (10)[如果 你 在 開車 呢], 就 不 要 滑 手機. a. [Ruguo ni kanche nel, iiu bu yao shouji. zai hua SMLT drive SFAP not should swipe cellphone if you then 'If you are driving, you should not swipe a cellphone.'
 - 那時 在 開車 滑 手機. b. [如果 你 來著], 就 不 應該 [Ruguo ni nashi zai kanche laizhe], jiu bu yinggai hua shouji. then SMLT drive SFAP then not should swipe cellphone you 'If you were driving at that time, you should not swipe a cellphone.'
 - [如果 你 喝 酒 就 不 要 開車. c. 了], [Ruguo ni he jiu le]. iiu bu yao kaiche. not should if drink alcohol SFAP then drive you 'If you have drunk alcohol, you should not drive.'
- (11)[因為 你 在 開車 呢], 所以 不 要 滑 手機. a. [Yinwei ni zai kanche nel, hua shouji. suovi bu vao should swipe cellphone because you SMLT drive SFAP then not 'Because you are driving, you should not swipe a cellphone.'
 - 來著], 我 b. [因為 你 存 開重 所以 沒 [Yinwei ni zai kaiche laizhe], suovi wo mei drive SFAP therefore because you **SMLT** Ι not 給 打 雷話. 你 dianhua. ni da gei make call you 'Because you were driving, I did not call you.'
 - [因為 喝 洒 所以 不 要 開車. c. 你 了], iiu suovi [Yinwei ni he le]. bu yao kaiche. because you drink alcoholsFAP therefore not should drive 'Because you have drunk alcohol, you should not drive.'

2.2 Impossible hosting clauses

A new observation is that SFAPs may not occur in some types of embedded clauses. I introduce eight types of such clauses in 2.2.1 through 2.2.8.

2.2.1 The complement of a control verb

No SFAP may occur in the complement clause of a control verb, such as *shitu* 'try', *dasuan* 'plan', *jihua* 'plan', and *bi* 'force'. It is well-known that *meiyou/mei* 'not' and S-*le* may not occur in the same clause, as seen in (12a), but they may if they are in different clauses, as seen in (12b). The unacceptability of (12c) is expected, because both *mei* and S-*le* belong to the same matrix clause. However, if S-*le* belonged to the embedded clause in (12d), the example would be acceptable, contrary to the fact. The ungrammaticality of (12d) shows that no S-*le* is allowed in the complement clause of a control verb (contra Ernst 1994: 196). The same constraint on *ne* is seen in (13).

(12)	a.	*我	沒	說		那	件	事	了.			
		*Wo	mei	tingsh	10	na	jian	shi	le.			
		I	not	hear		that	CL	thing	SFAP			
	b.	我	沒	聽說		[阿傑	訂好		票	了].		
		I	mei	tingsh	10	[Ajie	ding-h	ao	piao	le].		
		I	not	hear		Ajie	order-	ready	ticket	SFAP		
		'I did 1	not hear	that Aj	ie had f	inished	orderin	g of the	e ticket.	,		
	c.	*阿傑	沒	試圖	[明天	中午		(就)	訂好		票]	了.
		*Ajie	mei	shitu	[mingt	ian-zho	ngwu	(jiu)	ding-h	ao	piao]	le.
		Ajie	mei	try	tomorr	ow-noc	n	then	order-	ready	ticket	SFAP
	d.	*阿傑	沒	試圖[明天中	中午		(就)	訂好		票	了].
		*Ajie	mei	shitu	[mingt	ian-zho	ngwu	(jiu)	ding-h	ao	piao	le].
		Ajie	mei	try	tomorr	ow-noc	n	then	order-	ready	ticket	SFAP
(13)	a.	阿傑	在	家	等	你	呢.					
		Ajie	zai	jia	deng	ni	ne.					
		Ajie	be	home	wait	you	SFAP					
		'Ajie i	s waitir	g for yo	ou at ho	me.'						
	b.	阿傑	打算	[明天	中午		在	家	等	你].		

```
[<sup>B</sup> [<sup>A</sup>他沒吃飯]三
[<sup>B</sup> [<sup>A</sup>Ta mei chi fan] san
     他三
                        天
                                    沒
                                                吃
                                                             飯
                                                                         了.
                                                                                    (ii)
                                                                                                                                                  了]
      Ta san
                        tian
                                                chi
                                                                                                                                      tian
                                    mei
                                                             fan
                                                                        le.
                                                                                                                                                 le]
                        day
                                                                                                    he not eat meal three
      he three
                                    not
                                                eat
                                                             meal
                                                                        SFAP
                                                                                                                                     day
                                                                                                                                                 SFAP
      'He did not eat any meal for three days."
                                   [<sup>B</sup>[<sup>A</sup>_i沒
(iii) 他 i [三
                                                            吃
                                                                        飯]_k 了].
                        天]<sub>k</sub>
                                    [^{B}[^{A}_{i}] mei
                                                                        fan] _{k} le]
      Ta<sub>i</sub> [san
                        tian]<sub>k</sub>
                                                            chi
                                                            meal
      he three
                        day
                                                                        SFAP
                                        not eat
```

Also, *mei*, as well as *bu* 'not', may be next to *zai* 'again' (Hou 1998: 717). In (iv), if *zai* did not occur, the sentence would be unacceptable. It is possible that *mei* is associated with *zai* exclusively in (iv), and thus neither (i) nor (iv) falsifies the generalization that S-le is not in construal with *mei* in the same clause.

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(iv)
                 後來
                                                   去
                                                           北京
                                                                    了.
                                                                            (Wu 2004: 300)
        我
                         就
                                  沒有
        Wo
                houlai
                         jiu
                                  meiyou zai
                                                           Beijing le.
                                                   qu
                                                           Beijing SFAP
                later
                         then
                                  not
                                          again
                                                   go
        'I did not go to Beijing again since then.'
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⁴ *Mei* 'not' may not occur with the suffix *-le* in the same clause, either (Wang 1965). Moreover, if a duration expression occurs, *mei* and S*-le* seem to be able to occur in the same clause, as seen in (i). However, Jin (2005) claims that (i) encodes two propositions: (A) he does not eat any meal, and (B) this state lasts for three days; and S*-le* is in construal with (B) only. Thus, *mei* does not occur with S*-le* in the same clause in (i). Syntactically, I assume that the clause denoting (A) is the subject of (B). *Ta* 'he' in (i) can be a topic, associated with the subject position inside (A). The order that *san tian* precedes A can be derived by either den Dikken's (2006) Spec-Complement relation between a predicate and its subject, or by his predicate-raising analysis, as shown in (iii).

dasuan [mingtian-zhongwu Ajie zai jia deng ni]. tomorrow-noon plan Ajie be home wait you **SFAP** 'Ajie plans to wait for you at home tomorrow noon.' 打算 「明天中午 阿傑正在 在 家 筡 你1 呢. c. Ajie zhangzai dasuan [mingtian-zhongwu zai jia deng ni] ne. tomorrow-noon Ajie smlt plan be home wait you **SFAP** 'Ajie is planning to wait for you at home tomorrow noon.' [明天中午 *阿傑 打算 d. 在 家 筝 你 呢]. *Ajie dasuan [mingtian-zhongwu zai jia deng ni ne]. plan tomorrow-noon Ajie be home wait you sfap

2.2.2 The complement of a raising verb

No SFAP may occur in the complement of a raising verb. *Kaishi* 'start', *tingzhi* 'stop', and *jixu* 'continue' are aspectual raising verbs (Li 1990: 123; Tsao 1996: 176; Tang 2000: 199). In (14a), the subject of *yingxiang* 'affect' in the embedded clause is *yushui* 'rain', but it surfaces to the left of the matrix verb *kaishi* 'start'. (14b) shows that the raising of the subject is obligatory, and (14c) shows that the object *nongzuowu* 'crop' may not be raised. The restrictions are typical properties of raising verbs (Chomsky 1981) (see Li 1990: 129 for more arguments for the raising verb status of *kaishi*).⁵

(14)	a.	雨水 開始 Yushui kaishi	~!> I	農作物. nongzuowu.	
		rain start	affect	crop	
		'The rain has	started to affec	t the crops.	
	b.	*開始 雨水	影響	農作物.	(also see Li 1990: 129)
		•	i yingxiang	nongzuowu.	
		rain start	affect	crop	
	c.	*農作物	開始 雨水	影響.	
		*nongzuowu crop	kaishi yushui start rain	yingxiang affect	

The complement of a raising verb rejects a SFAP. We show this with S-le. In (15a), the two embedded S-le clauses are conjoined by *yifangmian*... *lingyifangmian* 'and ... and'. In (15b), under the raising verb *kaishi*, neither of the conjuncts has S-le, and the S-le is in contrual with the raising verb itself. If the conjuncts have S-le, as in (15c), the sentence is not acceptable. This group of examples shows that the complement of a raising verb excludes a SFAP.

(15)	a.	我	聽說	一方面 [雨水		影	響	農作物
		Wo	tingshuo	yifangmian	[yushu	ıi yiı	ngxiang	nongzuowu
		I	hear	and	rain	af	fect	crop
		了],	另一方面	[雨水	也	影響	交通	了].
		le,	lingyifangmia	ın [yushui	ye	yingxiang	jiaotor	ng le].
		SFAP	and	rain	also	affect	traffic	SFAP
		'I hear	rd that the rain l	has affected cro	ops, and	it has also	affected tra	ffic.'
	b.	雨水	開始 一方面	[影響		農作物],	另一方	可面

⁵ In order to deny the existence of raising verb in Chinese, after discussing the non-raising verb use of *haoxiang* 'seem' (also see Li 1990: 122), LaPolla (1993: 785) states that "See Tsao 1990:378ff for other examples of 'raising' in Chinese showing the possibility of all arguments being 'raised'". However, Tsao (1990) does not discuss aspectual raising verbs; although he discusses verbs such as *kan-qilai* 'look like'.

	Yushui rain	kaishi start	yifanga and	mian	[yingx	iang	nongzi crop	iowu]	lingyif and	angmian
	[世	影響	una	交通]	urrect	了.	стор		una	
	[ye	yingxi	ang	jiaoton	g]	le.				
	also affect			traffic		SFAP				
	'The ra	in has s	started t	o affect	the cro	ps, and	also aff	fect traf	fic.'	
c.	*雨水		開始	一方面	Ī	[影響		農作物	7J	了],
	*Yush	ui	kaishi	yifangı	mian	[yingx	kiang nongz		ıowu	le]
	rain		start	and		affect		crop		SFAP
	另一方面			[也	影響		交通		了].	
	lingyif	angmia	n	[ye	yingxi	ang	jiaoton	ıg	le].	
	and			also	affect		traffic		SFAP	

2.2.3 The complement of lai 'come' and qu 'go'

No SFAP may occur in the complement clause of lai 'come' or qu 'go' (ne does not occur with lai or qu, so we discuss S-le and laizhe only). In (16a), qu occurs with S-le. (16b) shows that the string jie shu 'borrow books' surfaces to the left of qu (see Zhang 2003 for a syntactic analysis), stranding S-le. (16c) shows that if S-le is grouped with the string, the result is not grammatical. The contrast between (16b) and (16c) indicates that in (16a), S-le does not belong to the complement of qu. Instead, it is in construal with qu. The examples in (17) show the same pattern in lai 'come' constructions.

(16)	a.	阿傑	去	借	書	了.
		Ajie	qu	jie	shu	le.
		Ajie	go	borrow	book	SFAP
		'Ajie h	as gone	to bori	ow boo	ks.'
	b.	阿傑	[借	書]	去	了.
		Ajie	[jie	shu]	qu	le.
		Ajie	borrow	book	go	SFAP
		'Ajie h	as gone	to bori	ow boo	ks.'
	c.	*阿傑	<u>借</u>	書	了	去.
		*Ajie	jie	shu	<u>le</u>	qu.
		Ajie	borrow	book	SFAP	go
(17)	a.	阿傑	來	借	書	了.
		Ajie	lai	jie	shu	le.
		Ajie	come	borrow	book	SFAP
		'Ajie h	as com	e to bor	row bo	oks.'
	b.	阿傑	[借	書]	來	了.
		Ajie	[jie	shu]	lai	le.
		Ajie	borrow	book	come	SFAP
		'Ajie h	as com	e to bor	row bo	oks.'
	c.	*阿傑	<u>借</u>	書	了	來.
		*Ajie	jie	shu	<u>le</u>	lai.
		Ajie	borrow	book	SFAP	come

One examples in which *qu* occurs with *laizhe* is (18b), uttered by the character Baoyu in Chapter 78 of the classic novel *Hong-Lou Meng* (*Dream of Red Mansions*). In addition to (18b), (18a) is also acceptable, but (18c) is not acceptable. The acceptability pattern is the same as in (16) above: the SFAP does not belong to the complement of *qu*.

(18)不但 我 聽得 直切,我 澴 親自 去 a. zhiqie, wo Budan ting-de hai ainzi wo qu not.only I hear-DE clear I also directly go 來著。 [偷著 看] [touzhe kanl laizhe. secretly look **SFAP** 'I not only heard it clearly, but also went to see it secretly.' 聽得 b. 不但 我 直切,我 澴 親自 [偷著 zhiqie, wo Budan ting-de hai ginzi [touzhe wo not.only I hear-DE clear I also directly secretly 來著。 看] 去 laizhe. kan] qu look go **SFAP** 'I not only heard it clearly, but also went to see it secretly.' c. *不但 我 聽得 直切,我 還 親自 *Budan wo ting-de zhiqie, wo hai qinzi not.only I hear-DE clear I also directly 偷著 看 來著 去。 touzhe kan laizhe qu. secretly look **SFAP** go

The three sets of examples all show that the complement of *lai* or *qu* rejects a SFAP.

2.2.4 The complement of a non-epistemic modal

A SFAP may occur in the complement of an epistemic modal, but not that of a non-epistemic modal. In (19a), S-le occurs in the complement of the epistemic modal yinggai 'should', and in (19b), ne occurs in the complement of the same modal. In (20a), bixu 'must' is not an epistemic modal, and there is no SFAP in its complement. (20b) shows that if S-le occurs in the complement of bixu, the sentence is not acceptable (also see Lin 2011, 2015). Similarly, in (21a), the complement bixu has no SFAP; but in (21b), the complement has ne. The latter example is not acceptable.

(19)[明天中午 就 我 估計 阿傑 應該 訂好 a. Wo guji Ajie yinggai [mingtian-zhongwu jiu ding-hao Ι guess Ajie should tomorrow-noon then order-ready 票 了]. le]. piao ticket SFAP 'I guess that Ajie must have finished ordering of the ticket by tomorrow noon.' b. 我 估計 阿傑 應該 [明天中午 訂 在 Wo guji Ajie yinggai [mingtian-zhongwu ding zai Ι guess Ajie should tomorrow-noon SMLT order 票 呢]. ne]. piao ticket SFAP 'I guess that Ajie must be ordering the ticket at tomorrow noon.' (20)阿傑 必須 [明天中午 就 票]. a. 訂好

		Ajie Ajie	bixu must	[mingtian-zhongwu tomorrow-noon	jiu then	ding-h order-i		piao]. ticket	
		'Ajie r	nust fin	ish ordering of the tick	cet by to	morrov	v noon.'		
	b.	*阿傑	必須	[明天中午	就	訂好		票	了].
		*Ajie	bixu	[mingtian-zhongwu	jiu	ding-h	ao	piao	le].
		Ajie	must	tomorrow-noon	then	order-	ready	ticket	SFAP
(21)	a.	阿傑	必須	[明天中午	訂	票].			
		Ajie	bixu	[mingtian-zhongwu	ding	piao].			
		Ajie	must	tomorrow-noon	order	ticket			
		'Ajie r	nust be	ordering the ticket ton	norrow	noon.'			
	b.	*阿傑	必須	[明天中午	訂	票	呢].		
		*Ajie	bixu	[mingtian-zhongwu	ding	piao	ne].		
		Ajie	must	tomorrow-noon	order	ticket	SFAP		

2.2.5 The V-even-not-V adverbials

No SFAP occurs in a kind of "even without"-adverbial, which can be called V-even-not-V adverbial. In such an adverbial, two copies of a transitive verb are separated by *ye* 'even, also' and *bu* 'not', as shown by the bracketed part in (22a). Both the agent and the patient of the verb in the adverbial are shared with those of the matrix verb. There is neither an overt subject nor an overt object for the verb in such an adverbial. A detailed analysis of the internal structure of a V-even-not-V construction is beyond the focus of this paper. What concerns us here is that no AFAP may occur in such an adverbial, as shown in (22b) through (22d).

(22)	a.	阿傑	[看也不看]	就	買了		那	個	戒指.	
		Ajie	[kan-ye-bu-kan]	jiu	mai-le		na	ge	jiezhi.	
		Ajie	look-even-not-look	then	buy-PF	RF	that	CL	ring	
		'Ajie t	ought that ring even w	vithout t	aking a	look at	it.'			
	b.	*阿傑	[看也不看	呢]	就	買了		那	個	戒指.
		*Ajie	[kan-ye-bu-kan	ne]	jiu	mai-le		na	ge	jiezhi.
		Ajie	look-even-not-look	SFAP	then	buy-PI	RF	that	CL	ring
	c.	*阿傑	[看也不看	來著]	就	買了		那	個	戒指.
		*Ajie	[kan-ye-bu-kan	laizhe]	jiu	mai-le		na	ge	jiezhi.
		Ajie	look-even-not-look	SFAP	then	buy-PI	RF	that	CL	ring
	d.	*阿傑	[看也不看	了]	就	買了		那	個	戒指.
		*Ajie	[kan-ye-bu-kan	le]	jiu mai-le			na	ge	jiezhi.
		Ajie	look-even-not-look	SFAP	then	buy-PI	RF	that	CL	ring

2.2.6 Small Clauses

The Small Clause complement of a mental attitude verb also rejects a SFAP. In (23b), the clause in (23a) is embedded under *taoyan* 'dislike', without the SFAP *ne*. If *ne* occurs in the complement clause, the sentence becomes unacceptable. (24) and (25) show the same restriction on *laizhe* and S-*le*. Notice that *laizhe* would be allowed in (24b) if it were in construal with the matrix verb *taoyan* directly, rather than with the embedded clause. In that case, the sentence would mean 'I used to dislike Ajie's eating of durian in the office'.

(23)阿傑 在 辦公室裏 吃 榴槤 呢. a. bangongshi-li chi Ajie zai liulian ne. office-in eat durian SFAP Ajie at 'Ajie is eating a durian in the office.'

- b. 我 討厭 [阿傑 在 辦公室裏 吃 榴槤 (*呢)]. Wo taoyan [Ajie zai bangongshi-li chi liulian (*ne)]. office-in dislike Ajie durian I at eat SFAP 'I dislike Ajie's eating of a durian in the office.'
- (24)辦公室裏 吃 榴槤 a. 阿傑 在 來著. Ajie zai bangongshi-li chi liulian laizhe. office-in Ajie at eat durian SFAP 'Ajie was eating a durian in the office.'
 - 「阿傑 在 b. 討厭 辦公室裏 吃 榴槤 (*來著)]. 我 Wo taoyan [Ajie bangongshi-li chi zai liulian (*laizhe)]. I dislike Ajie at office-in durian **SFAP** 'I dislike Ajie's eating of a durian in the office.'
- 承認 (25)自己的 了. 阿傑 絣 a. Ajie chengren ziji-de le. cuo Ajie admit self-DE mistake **SFAP** 'Ajie has admitted that he was wrong.'
 - b. 讚許 [阿傑 承認 自己的 錯 (*了)]. 我 Wo zanxu [Ajie chengren ziji-de cuo (*le)]. I appreciate Ajie admit self-DE fault **SFAP** 'I appreciate that Ajie has admitted his fault.'

2.2.7 Gapless relative clauses

A special type of relative clauses also rejects SFAPs. Chinese has both gappy and gapless relative clauses. One example of the former type is (26a). If *laizhe* occurs in such a relative clause, as in (26b), as stated in Paul (2015: 288, citing Pan 2012), the construction is accepted only by speakers from Northern China. On the other hand, neither S-*le* nor *ne* may occur in a relative clause (Ross 1983: 235 for the restriction on S-*le*), as shown by (26c) and (26d).

(26)我 找到了 [昨天 騙 我] 的 那 個 人. a. Wo zhaodao-le [zuotian _ pian de wol na ge ren. I find-PRF yesterday cheat I DE that CL person 'I found the person who cheated me yesterday.' 找到了 b. #我 [昨天 來著]的 那個 人. 騙 我 #Wo zhaodao-le zuotian laizhe] de _ pian wo na ge ren. find-PRF yesterday I cheat I CL person DE that 'I found the person who cheated me yesterday.' 找到了 *我 我 的 那 人. c. [_ 騙 了1 個 *Wo zhaodao-le [_pian wo le] de na ge ren. cheat Ι find-PRF I SFAP that person DE CLd. *我 騙 我 找到了 [剛才 在 呢] 的 那 *Wo zhaodao-le [gangcai _ zai pian wo ne] de na find-PRF just.now cheat I that Ι **SMLT** SFAP DE 個 人. ge ren. CL person

Nonfinite relative clauses are possible, cross-linguistically. The relative clause in (27a) is finite but the one in (27b) is nonfinite (Stowell 1982: 562). Thus, the inconsistent pattern in

(26) is not a surprise, if SFAPs are finite markers (to be argued later), although I do not analyze this inconsistency in this paper.

- (27) a. The table on which you should put your coat is in the next room.
 - b. The table on which to put your coat is in the next room.

A more consistent pattern is seen in gapless relative clauses in Chinese. In a gapless relative clause, no gap or overt pronoun is associated with the external "head" that is modified by the relative clause (Tang 1979). One example is (28a). Such a clause has been analyzed as a subject clause (Zhang 2008) or complement clause (Huang 2016), of the noun to its right. Regardless of the differences of the analyses, a new observation is that such a clause may not contain a SFAP, as shown in (28b) through (28d).

(28)	,		聽見了	[阿傑	彈	鋼琴]	的	聲音.	
		Wo	tingjian-le	[Ajie	tan	gangqin]	de	shengy	in.
		I	hear-PRF	Ajie	play	piano	DE	sound	
		'I hear	d the sound cor	ning fro	m Ajie	's playing of th	e piano		
	b.	*我	聽見了	[阿傑	彈	鋼琴	呢]	的	聲音.
		*Wo	tingjian-le	[Ajie	tan	gangqin	ne]	de	shengyin.
		I	hear-PRF	Ajie	play	piano	SFAP	DE	sound
	c.	*我	聽見了	[阿傑	彈	鋼琴	來著]	的	聲音.
		*Wo	tingjian-le	[Ajie	tan	gangqin	laizhe]	de	shengyin.
		I	hear-PRF	Ajie	play	piano	SFAP	DE	sound
	d.	*我	聽見了	[阿傑	彈	鋼琴	了]	的	聲音.
		*Wo	tingjian-le	[Ajie	tan	gangqin	le]	de	shengyin.
		I	hear-PRF	Ajie	play	piano	SFAP	DE	sound

2.2.8 The complement of the prepositional complementizer dui 'to'

SFAPs are absent in the complement of the prepositional complementizer *dui* 'to'. In (29a), *dui* introduces a clause, which functions as the complement of *hen zaiyi* 'very mind'. Tsai (1995: 283) claims that in such a construction, *dui* assigns Case to the introduced clause. I have observed that such an embedded clause rejects a SFAP, as seen in (29b) through (29d).

(29)	a.	阿傑	[對	露露	賣了		那	輛	車]	很	在意.
		Ajie	[dui	Lulu	mai-le	:	na	liang	che]	hen	zaiyi.
		Ajie	to	Lulu	sell-PF	RF	that	CL	car	very	mind
		'Ajie i	s very ı	ipset ab	out Lul	u's sell	ing of th	nat car.'			
	b.	*阿傑	[對	露露	賣	那	輛	車	呢]	很	在意.
		*Ajie	[dui	Lulu	mai	na	liang	che	ne]	hen	zaiyi.
		Ajie	to	Lulu	sell	that	CL	car	SFAP	very	mind

⁶ Case-marked clauses are also seen in other languages, e.g., (i) in Modern Uyghur. "In a nominalized complement clause, the main verb does not bear a tense suffix. Instead, it appears with a relative clause suffix *-ken* and the nominalizer *-lik* together with a possessive agreement that marks the person of the embedded subject which is genitive marked. The entire clause is case marked by the accusative suffix *-ni* in [(ia)]." (Sudo 2010: 8)

⁽i) a. Ahmet [Tursun-ning kit-ken-lik-i-**ni**] di-di. (Nominalized Complement)
Ahmet Tursun-GEN leave-REL-NML-3-ACC say-PAST.3

'Ahmet said that Tursun left'

b. Ahmet [Tursun(-ni) ket-ti] di-di. (Finite Complement)
Ahmet Tursun(-ACC) leave-PAST.3 say-PAST.3

'Ahmet said that Tursun left'

```
來著] 很
c.
      *阿傑[對
                   露露
                         賣
                                那
                                      輛
                                             車
                                                                在意.
      *Ajie [dui
                   Lulu
                                                                zaiyi.
                         mai
                                na
                                      liang
                                             che
                                                   laizhe] hen
       Ajie to
                   Lulu
                         sell
                                                   SFAP
                                                                mind
                                that
                                      CL
                                             car
                                                         very
      *阿傑「對
                         賣了
d.
                   露露
                                      那
                                             輛
                                                   車
                                                          了]
                                                                很
                                                                      在意.
      *Ajie [dui
                   Lulu
                         mai-le
                                             liang
                                                                hen
                                                                      zaiyi.
                                      na
                                                   che
                                                         le]
       Ajie to
                   Lulu
                         sell-PRF
                                      that
                                             CL
                                                         SFAP
                                                                very
                                                                      mind
                                                   car
```

In this section, I have identified eight types of clauses that ban a SFAP.

3. Nonfinite properties of the clauses that disallow a SFAP

The eight types of clauses that ban a SFAP bear the fingerprint of nonfinite clauses, to be presented in 3.1 through 3.5.

3.1 The dependency on another clause

Nonfinite clauses are dependent. According to Trask (1993: 103), a 'finite' verb denotes a form of a verb or auxiliary which can in principle serve as the only verb form in a sentence. This means that a nonfinite verb, by contrast, is a verb that intrinsically depends on anther verb, and therefore, a nonfinite clause must be hosted by anther clause.

The eight types of clauses that reject a SFAP can be divided into two groups. Group A includes the first five types (i.e., the complement of a control verb, the complement of a raising verb, the complement *lai* 'come' and *qu* 'go', the complement of a non-epistemic modal, and the V-even-not-V adverbial). Obviously all of these clauses are embedded. Group B includes the rest four types (i.e., Small Clauses, gapless relative clauses, and *dui*-clauses). They are not only embedded, but can also be replaced with a nominal, such as *na jian shi* 'that matter' and *na zhong qingjing* 'that situation', as seen in (30).

- (30)我 討厭 {阿傑 在 吃 榴槤/那 種 情景}. a. 家裏 Wo taoyan {Ajie zai jia-li chi liulian/na zhong qingjing. dislike Ajie I at home-in eat durian/that situation CL 'I dislike {Ajie's eating of a durian at home/that situation}.'
 - 聽見了 鋼琴/鋼琴} b. 我 {阿傑彈 的 聲音. Wo tingjian-le {Ajie tan shengyin. gangqin/gangqin} de hear-PRF piano/piano sound I Ajie play DE 'I heard {the sound coming from Ajie's playing of the piano/the sound}.'
 - 料 車/那 件 c. 阿傑 {露露 賣了 事} 很 在意. Ajie dui {Lulu mai-le che/na jian shi} hen zaiyi. Aiie Lulu sell-PRF car/that CL matter very mind 'Ajie is very upset about {Lulu's selling of the car/that matter}.'

Some types of nonfinite clauses behave like nominals in many languages (e.g., Givon 1990; Bisang 2001; Booij 2007: 101; McFadden & Sundaresan 2014: 3; Chamoreau & Estrada-Fernámdes 2016). Type B clauses are similar to such nonfinite clauses.

Therefore, like nonfinite clauses in other languages, none of the eight types of clauses that ban a SFAP may occur as an independent utterance.

3.2 The ban of *pro-*drop

Chinese is a *pro*-drop language: the subject of a clause can be a *pro*, i.e., a null pronoun that can refer deictically. For example, the *pro* subject in (31a) and the adverbial clause in (31b) may refer to someone that is clear to the addressee in the discourse context.

- (31)又 說 謊 了. a. pro shuo huang le. Proyou again lie SFAP say 'The person is lying again.'
 - 如果 pro 要 滑 手機. b. 在 開車 呢, 就 不 Ruguo pro zai kaiche ne. iiu bu yao hua shouji. if drive SFAP should swipe cell.phone SMLT then not 'If the person is driving, he should not swipe his cell phone.'

Having worked on many *pro*-drop languages, including Spanish, Italian, Romanian, Hungarian, Japanese, Hindi, and Tamil, Sundaresan (2014: 74-83; 2015) formulates a "Finiteness *pro*-drop generalization", which states that *pro*-drop does not occur in the subject position of prototypically nonfinite clauses. It means that the null subject of a nonfinite clause does not have independent interpretation. The generalization can also be seen in the Sundanese example in (32) (Kurniawan & Davis 2015: 11). Like Chinese, the language has no tense or case makers. A similar fact in Sranan is discussed in Plag (1993; see Bisang 2001: 1409).

- (32) a. Barudak_j nyoba-nyoba [PRO_{j/*k} rék jarual-an sapatu di pasar]. children AV.try-RED FUT sell.PL-IT shoes in market 'The children tried to sell shoes in the (traditional) market.'
 - b. Amung nitah Ujang $_j$ [sina PRO $_{j/*k}$ jual-an sapatu di pasar]. Amung Av.order Ujang so.that sell-IT shoes in market 'Amung ordered Ujang to sell shoes in the (traditional) market.'

The Chinese *pro*-hosting clauses in (31a) and (31b) both have a SFAP. We now consider Group A clauses. Assume that the identity of person K is clear in the discourse context in each of the examples in (33). The acceptability contrasts indicate that in none of the examples may the subject of the embedded clause, marked by _, refer to person K. Instead, it has to refer to Ajie. Since the interpretation of null subject in each example of (33) is not free, the subject cannot be a *pro*, which may refer to any individual identifiable in the context.

- (33)a. 阿傑:打算 [明天中午 _j/*k 存 家 你]. Ajie_i dasua [mingtian-zhongwu iia deng ni]. zai _j/*k tomorrow-noon Ajie plan home wait at you 'Ajie plans to wait for you at home tomorrow noon.'
 - b. 阿傑 j 開始 [_j/*k 打掃 教室] 了.
 Ajie j kaishi [_j/*k dasao jiaoshi] le.
 Ajie start clean classroom SFAP
 'Ajie starts to clean the classroom.'
 - 借 阿傑:去 書 1 了. c. [_i/*k Ajie_i jie shul qu [_i/*k le. Ajie borrow book **SFAP** go 'Ajie has gone to borrow books.'
 - 阿傑; 必須 「明天中午 就 票]. d. 訂好 _j/*k [mingtian-zhongwu Ajie_i bixu ding-hao piaol. jiu _j/*k tomorrow-noon order-ready Aiie must ticket then 'Ajie must finish ordering of the ticket by tomorrow noon.'
 - e. 阿傑 j [_j/*k 看也不看] 就 買了 那 個 戒指.

Ajie_j [$_{\underline{j}/^*k}$ kan-ye-bu-kan] jiu mai-le na ge jiezhi. Ajie_j look-even-not-look then buy-PRF that CL ring 'Ajie bought that ring even without taking a look at it.'

A clause of Group B (Small Clause and *dui*-clause) may have its own subject, but the subject may not be a *pro*, either. Assume that the referent of *Ajie* is clear in the discourse context in all the examples in (34). The examples are not acceptable if *Ajie* is replaced with a *pro* (gapless relatives, by definition, contain no null argument, and thus are not discussed here).

(34)a. 我 討厭 [{阿傑 i/*proi}說 謊]. Small Clause Wo taoyao [{Ajie_i/*pro_i} shuo huang]. I dislike Ajie lie say 'I dislike Ajie's lying.' 露露ょ「對 {阿傑;/*pro;} 說 謊] 很 b. 在意. Dui-clause Lulu_k [dui {Ajie_i/**pro*_i} shuo huang] hen zaiyi. Lulu to Ajie lie very mind

Thus, no *pro* subject is allowed in any of the eight types of clauses that ban a SFAP. The fact indicates that such clauses exhibit properties of nonfinite clauses.

3.3 The invisibility of the clause boundary for Condition B

'Lulu is very upset about Ajie's lying.'

The fact that the interpretations of the subjects of nonfinite clauses are not always free is also seen in binding. Condition B of the binding theory states that a non-reflexive pronoun must not have a binder within its local clause. For instance, in (35a), the pronoun *he* may take *John* as its antecedent, since the two nominals are not in the same clause (Chomsky 1973). In (35b), however, the pronoun *him* may not take the clause-external *John* as its antecedent. In (35a), the clause hosting the pronoun is finite, but in (35b), the clause hosting the pronoun is nonfinite. The binding contrast indicates that for a nonfinite clause, its clause-boundaries seem to be invisible, and thus, the pronoun may not take the other nominal as its antecedent, as if the latter were in the same local clause. The same contrast is seen between the finite complement clause in (37a) and the nonfinite complement clause in (37b) in Welsh (Tallerman 1998: 90, 92). In all of these cases, a nonfinite clause does not count as a clause to Condition B. If the binding domain of Condition B is specified as a finite clause (e.g., the so-called Tensed-S Condition in Chomsky 1973: 238; cf. Kayne 2002), the empirical contrast still needs to be explained.

- (35) a. John_i said that he_i likes Mary.
 - b. John_i believes $him_{k/*_i}$ to like Mary.
- (36) a. Billy_i asked [that he_i may smoke in the plane].
 - b. Billy_i heard [$him_{k/*_i}$ jumping].
- $(37) \quad a. \quad \quad Dywedodd \quad Aled_i \quad [iddo \qquad \quad fo_{i/j} \quad fynd]. \qquad (Welsh) \\ said \qquad \quad Aled \quad to: 3 \text{MASC.SG} \quad he \qquad go \\ \quad \quad \text{`Aled said that he'd gone.'}$
 - b. Dymunai Aled_i [iddo fo $_{j/*i}$ fynd]. wanted Aled to:3MASC.SG he go 'Aled wanted him to go.'

The binding pattern in the Chinese examples in (38) is similar to the one in the aexamples in (35) through (37): the clause boundaries of the embedded clauses are visible to Condition B, and thus the contained pronoun may take the subject of the matrix clause as its antecedent. The embedded clauses in these examples do not belong to the eight types of clauses that ban a SFAP. In contrast, the binding pattern in the examples in (39) is similar to that in the b-examples in (35) through (37): the clause boundaries of the embedded clauses are not visible to Condition B, and thus the contained pronoun may not take the subject of the matrix clause as its antecedent. These embedded clauses belong to the types of clauses that reject a SFAP.

- (38)a. 阿傑:不 知道 「他 i 已經 遲到 +分鐘 了]. yijing chidao shi fenzhong Aiie_i bu zhidao [tai le]. already late Ajie not know he ten minute **SFAP** 'Ajie does not know that he is already late for ten minutes.'
 - 阿傑:聽見了 [他 i 得了 膯 了1 b. 的 消息. tingjian-le de-le jiang le] Ajie_i [ta_i de xiaoxi. hear-PRF get-PRFaward SFAP Aiie he DE news 'Ajie heard the news that he got the award.'
- (39) a. 阿傑 i 討厭 [他 k/*i 抽菸]. Small Clause Ajiei taoyan [ta_{k/*i} chouyan]. Ajie dislike he smoke 'Ajiei dislikes his_{k/*i} smoking.
 - 阿傑:聽見了 b. [他 k/*i 彈 鋼琴] 的 聲音. Gapless RC tingjian-le Ajie_i [ta_{k/*i} tan gangqin] shengvin. de hear-PRF sound Ajie he piano play DE 'Ajie, heard the sound coming from his_{k/*i} playing the piano.'
 - 阿傑 i [對 他 k/*i 生病 很 不在意. Dui-clause c. bu-zaiyi. Ajie_i [dui sheng-ming] hen $ta_{k/*i}$ Ajie get-sick not-mind to he very 'Ajie, does not care much about his_{k/*i} getting sick.'

The contrast between (38) and (39) parallels to the one between the a-examples, which have finite embedded clauses, and the b-examples, which have nonfinite embedded clauses, in (35) through (37), indicating that clauses that reject a SFAP behave like nonfinite clauses.

3.4 The ban of a speaker-oriented adverb

Speaker-oriented adverbs (following Ernst 2009, I call such adverbs SpOA), e.g., *fortunately, oddly, unbelievably*, may not occur in nonfinite clauses, unlike subject-oriented ones, e.g., *tactfully, cleverly, willingly* (Ernst 2002: 472). (40a) shows that the nonfinite subject clause allows the subject-oriented adverbs, and (40b) shows that the same clause disallows the SpOAs. (41a) shows that the nonfinite complement clause allows the subject-oriented adverbs, and (41b) shows that the same clause disallows the SpOAs.

- (40) a. To {tactfully/cleverly/willingly} leave early would be good.
 - b. *To {fortunately/oddly/unbelievably} leave early would be good.
- (41) a. We saw them {tactfully/cleverly/willingly} stand aside to let the visitors pass.
 - b. *We saw them {fortunately/oddly/unbelievably} stand aside to let the visitors pass.

The clause that allows a SFAP may host a SpOA, as seen in (42).

(42) a. 我 知道 [阿傑 幸虧 買了 保險 了].

know Ajie fortunately buy-PRF insurance **SFAP** 'I know that Ajie has fortunately bought insurance.' b. [阿傑 不幸 遇難 了1 人 傷心. ling [Ajie buxing yu-nan lel ren shangxin. unfortunately suffer-disaster SFAP Aiie make people sad 'That Ajie got killed unfortunately made people sad.' (also Huang 2016: (94)) 聽到了 [阿傑 還好 買了 保險 我 了] c. Wo tingdao-le [Ajie haihao mai-le baoxian le] hear-PRF Ajie fortunately buy-PRF insurance T **SFAP** 的 消息. de xiaoxi. DE news 'I heard the news that Ajie has fortunately bought insurance.' 買了 d. [因為 阿傑 幸虧 保險 了], [Yinwei Aiie mai-le baoxian xingkui le1. because Ajie fortunately buy-PRF insurance **SFAP** 所以 我 不 擔心. suovi wo danxin. bu therefore I not worry 'Because Ajie has fortunately bought insurance, therefore, I'm not worried.' (43) shows that all eight types of clauses where a SFAP is banned reject a SpOA: 箬 (43)阿傑 打算 [明天中午 (*幸虧) 在 家 你]. a. Ajie dasuan [mingtian-zhongwu (*xingkui) zai iia neng ni]. tomoroow-noon Ajie plan fortunately home wait at you 'Ajie plans to wait for you at home tomorrow noon.' Control b. 雨水 開始 [{嚴重地 /*居然} 影響 交通 1 了. Yushui kaishi [{yanzhongde/*juran} vingxiang iiaotong] le. seriously/unexpectedly rain affect traffic start SFAP 'The rain has started to {seriously/*unexpectedly} affect the traffic.' Raising 借 書1 了. c. 阿傑 去 [(*幸虧) Ajie qu [(*xingkui) iie shul le. borrow book fortunately Ajie go **SFAP** 'Ajie has gone to borrow books.' Under COME/GO [明天中午 票]. d. 阿傑 必須 [(*幸虧) 訂好 Ajie bixu [mingtian-zhongwu (*xingkui) ding-hao piao]. tomorrow-noon fortunately order-ready Ajie must ticket must finish ordering of the ticket by tomorrow noon.' Non-epist modal 'Ajie [看(*幸虧)也不看 阿傑 就 買了 那 戒指. e. 個 Ajie [kan-(*xingkui)-ye-bu-kan] jiu mai-le na jiezhi. ge look-fortunately-even-not-look then buy-PRF that CL ring 'Ajie bought that ring even without taking a look at it.' V-even-not-V f. 讚許 [阿傑 (*幸虧) 承認 自己的 我 錯]. Wo [Ajie (*xingkui) ziii-de zanxu chengren cuol. fortunately self-DE appreciate Ajie admit fault 'I appreciate that Ajie has admitted his fault.' Small Clause 聽見了[阿傑 {*幸虧/昨天} 彈 g. 我 鋼琴1的

mai-le

baoxian

le].

Wo

zhidao [Ajie xingkui

Wo tingjian-le [Ajie {*xingkui/zuotian} tan gangqin] de I hear-PRF Ajie fortunately/yesterday play piano DE 聲音.

shengyin. Gapless RC sound

'I heard the sound coming from Ajie's playing of the piano yestreday.'

(*幸虧) h. 阿傑 [對 露露 賣了 醎 車] 很 在意. Lulu (*xingkui) Ajie [dui mai-le na liang che] hen zaiyi. Ajie to Lulu fortunately sell-PRF that CLcar very mind 'Ajie is very upset about Lulu's selling of that car.' Dui-clause

Since neither a nonfinite clause nor a clause that rejects a SFAP may host a SpOA, the latter behaves like the former in this respect.

3.5 The ban of an epistemic modal

Nonfinite clauses reject epistemic modals. In languages such as English, no modal occurs in a nonfinite clause (e.g., McCawley 1971; Ramchand & Svenonius 2014: 161), however, in some Scandinavian languages, non-epistemic modals may occur in nonfinite clauses (e.g., Eide 2005). But no epistemic modal occurs in a nonfinite clause, cross-linguisically. Accordingly, although multiple modals may occur in a row, no epistemic modal is under a non-epistemic one (Thrainsson & Vikner 1992; see Zhang 1997 for Chinese). A relevant fact is that in English, have to has an epistemic reading only when it is unembedded. In (44a), has to is finite and may have an epistemic reading. In (44b), however, have to is under the modal might and is not finite, and it does not have an epistemic reading (Ramchand & Svenonius 2014: 160).

- (44) a. John <u>has to</u> be in the library.
 - b. John might have to be in the library.

Similarly, in Chinese, no epistemic modal may occur in the complement of a control verb. In (45a), *gaosu* 'tell' is not a control verb, the epistemic modal *hui* 'might' occurs in the complement clause (Li 1990). The adverbial clause in (45b) also allows an epistemic modal.

- (45) 我 告訴 [火重 他 會 開]. a. Wo [huoche kai]. gaosu ta hui (Li 1990: 22) train Ι tell he might leave 'I told him that the train might leave.'
 - b. [因為 明天 會 下雨],所以 我們 今天 就 出發. [Yinwei mingtian hui xiayu], suoyi jintian jiu chufa. women since tomorrow will rain therefore we today then setoff 'Since it will rain tomorrow, we set off today.'

(46) shows that all eight types of clauses that ban a SFAP reject an epistemic modal (also see Li 1990: 22 and Zhang 1997: 73 for the constraint on control constructions).

[明天中午 (46)a. 阿傑 打算 (*會) 在 家 你]. Ajie dasuan [mingtian-zhongwu (*hui) zai iia neng ni]. might at Ajie plan tomoroow-noon home wait you 'Ajie plans to wait for you at home tomorrow noon.' Control

b. 雨水 開始 [(*會) 影響 農作物] 了.

```
Yushui kaishi (*hui) yingxiang
                                         nongzuowu]
                                                       le.
                    might affect
      rain
             start
                                         crop
                                                       SFAP
       'The rain has started to affect the crops.'
                                                              Raising
             夫
                    [(*會) 借
       阿傑
                                  書1
                                         了.
c.
                    [(*hui) jie
                                  shul
       Ajie
             qu
                                         le.
                    might borrow book
       Ajie
                                         SFAP
             go
       'Ajie has gone to borrow books.'
                                                              Under COME/GO
       阿傑
             必須
                    [明天中午
                                         (*會) 訂好
                                                              票].
d.
       Ajie
             bixu
                    [mingtian-zhongwu
                                         (*hui) ding-hao
                                                              piao].
                    tomorrow-noon
                                         might order-ready
                                                              ticket
       Ajie
             must
       'Ajie must finish ordering of the ticket by tomorrow noon.' Non-epist modal
       阿傑
             [看(*會)也不看
                                                買了
                                                              那
e.
                                       就
                                                                     個
                                                                           戒指.
             [kan-(*hui)-ye-bu-kan]
                                       iiu
                                                mai-le
                                                                           jiezhi.
       Ajie
                                                              na
                                                                     ge
       Ajie
             look-might-even-not-look then
                                                buy-PRF
                                                              that
                                                                     CL
                                                                           ring
       'Ajie bought that ring even without taking a look at it.
                                                              V-even-not-V
f.
             讚許
                           [阿傑 (*會) 承認
                                                       自己的
                                                                     錯].
       我
       Wo
                           [Ajie (*hui) chengren
             zanxu
                                                       ziji-de
                                                                    cuo.
                           Ajie
                                  might admit
             appreciate
                                                       self-DE
                                                                     fault
       'I appreciate that Ajie has admitted his fault.'
                                                              Small Clause
             要
                                                              聲音.
                    聽
                           [阿傑 (*會) 彈
                                                鋼琴]
                                                         的
g.
       我
                           [Ajie (*hui) tan
       Wo
                    ting
                                                gangqin] de
                                                              shengyin.
             yao
                                  might play
                    listen Ajie
                                                piano
                                                              sound
              want
       'I want to listen to the sound coming from Ajie's playing of the piano.'
                                                                     Gapless RC
h.
       阿傑
             [對
                    露露
                           (*會) 賣了
                                          那
                                                輛
                                                       車]
                                                              很
                                                                     在意.
       Ajie
             [dui
                    Lulu
                           (*hui) mai-le
                                          na
                                                liang
                                                              hen
                                                                     zaiyi.
                                                       chel
                           might sell-PRF that
       Ajie
                    Lulu
                                                                     mind
             to
                                                       car
                                                              very
       'Ajie is very upset about Lulu's selling of that car.'
                                                                     Dui-clause
```

Since neither a nonfinite clause nor a clause that rejects a SFAP may have an epistemic modal, the latter behaves like the former in this respect.

3.6 Summary: the existence of finiteness distinction in Chinese

In this section, I have provided robust evidence for the distinctions of two kinds of clauses from five sets of syntactic facts: those allow a SFAP behave like finite clauses and those reject a SFAP behave like nonfinite clauses in other languages. Specifically, for the latter group of clauses, they are intrinsically embedded, ban *pro-*drop, their clause boundaries may be invisible for binding, and they disallow a SpOA and an epistemic modal. In each case, the contrast points to the existence of finiteness distinction in Chinese: SFAPs are finite markers. If the distinction did not exist in Chinese (Y. Huang 1994; Hu et al. 2001), the eight types of clauses would be expected to allow SFAPs, like other clauses, contrary to the fact; and the similarities of the eight types of clauses to nonfinite clauses in other languages would be purely accidental, and the similarities of the clauses that allow SFAPs to finite clauses in other languages would also be purely accidental. Obviously, recognizing the existence of finiteness distinction avoids these empirical and theoretical inadequacies.

Treating the eight types of clauses that reject a SFAP as nonfinite clauses does not mean that these clauses have the same syntax. As stated by Adger (2007: 26), "there is more than one way to be non-finite". For instance, the complement of a control verb has a richer structure than that of a raising verb. The former allows a topic in Italian (Rizzi 1997: 309;

Haegeman 2004: 84) and Chinese (Zhang 2016; Li 2017), whereas the latter does not, as shown in (47) (see Adger 2007: 32 for Italian examples). Small Clauses have an even more impoverished structure (Rizzi 1997: 328). As for gapless relatives, the presence of *zuotian* 'yesterday' in (43g) indicates that their structure is larger than vP. Nominalized clauses (Fu 1994; Adger 2007: 42–57) are also nonfinite, rejecting a SFAP in Chinese, as shown in (48). Todorović & Wurmbrand (2017) claim that nonfinite clauses can be CP, TP, or vP.

- (47) a. *John seems, your book, to like best. (Adger 2007: 32)
 - *雨水 開始 [農作物 了. b. 影響] *Yushui kaishi [nongzuowu yingxiang] le. rain start crop affect **SFAP** Intended: 'The rain has started to affect the crops.'
- (48) a. 阿傑 生病 了.
 Ajie sheng-bing le.
 Ajie get-sick SFAP
 'Ajie has got ill.'
 - b. 「阿傑的 次) 牛病 (*了)] 很 不是時候. (這 [Ajie de (zhe ci) sheng-bing (*le)] hen bu-shishihou. Ajie this get-sick ill-timed DE CL SFAP very 'Ajie's getting sick happened at a bad time.'

4. Main properties of SFAPs

Since SFAPs are finite markers, one needs to know their syntactic properties. This section addresses two issues: SFAPs may have selectional restrictions on the aspect features of the associated predicate (4.1), and they are complementizers (4.2).

4.1 The aspect-selections of SFAPs

4.1.1 Ne and laizhe and their compatible aspect markers

Both *ne* and *laizhe* are compatible with simultaneous aspect markers of a predicate, such as the suffix *-zhe*, as shown in (49a,b) (for *ne* see Chan 1980; Zhu 1982: 210; Ma 1987), but they are not compatible with the perfective *-le*, the experiential *-guo*, and the inchoative *-qi*, as shown in (49c), (49d), and (49e), respectively. I thus claim that they both select a viewpoint aspect [+SMLT] (but non-temporal uses of *ne* do not have this restriction; see footnote 2).

- 門 (49) 開著 a. 呢. (Zhu 1982: 210) Men kai-zhe ne. door open-SMLT **SFAP** 'The door is open.' 門 b. 開著 來著. kai-zhe laizhe. Men door open-SMLT **SFAP** 'The door was open.' *阿傑 買了 {呢/來著}. c. 車
 - c. *阿傑 買了 車 {呢/來著}.

 *Ajie mai-le che {ne/laizhe}.

 Ajie buy-PRF car SFAP/SFAP
 d. *阿傑 買過 車 {呢/來著}.

 *Ajie mai-guo che {ne/laizhe}.
 - Ajie buy-EXP car SFAP/SFAP e. *阿傑 跳起 舞 {呢/來著}.

*Ajie tiao-qi wu {ne/laizhe}. Ajie dance-INCH dance SFAP/SFAP

Ne and *laizhe* occur with predicates that encode episodic eventualities only, rather than any generic ones, as seen in (50). I thus claim that they also select an event type aspect [-GEN].

(*呢/*來著). 比 (50)西瓜 橘子 大 Xigua bi da (*ne/*laizhe). juzi watermelon than orange big SFAP/SFAP 'A watermelon is bigger than an orange.'

4.1.2 S-le and its compatible aspect markers

S-le is compatible with various clause-internal viewpoint aspect markers, including the simultaneous aspect markers -zhe and zai, the perfective -le, the experiential -guo, and the inchoative -qi (Chao 1968: 798), as shown in (51a,), (51b), (51c), and (51d), respectively.

- (51)已經 了. a. 阿傑 在 跳著 Ajie yijing zai tiao-zhe wu le. Ajie already **SMLT** dance-SMLT dance SFAP 'Ajie has already been dancing.'
 - b. 阿傑 買了 車 了. Ajie mai-le che le. Ajie buy-PRF car SFAP 'Ajie has bought a car.'
 - c. 阿傑 買過 車 了. Ajie mai-guo che le. Ajie buy-exp car SFAP 'Ajie bought a car.'
 - d. 看 吶, 阿傑 跳起 舞 了. Kan na, Ajie tiao-qi wu le. Ajie dance-INCH Look INT dance SFAP 'Look! Ajie has started to dance.'

Thus, unlike *laizhe* and *ne*, S-*le* does not require or reject any specific viewpoint aspect marker in the predicate. S-*le* is also different from other SFAPs in another way: it denotes [change of state] (Li and Thompson 1981: 244). Because of this [change of state], there is a presupposition contrast between the sentence with S-*le* and those without S-*le*. (52a) does not presuppose that I did not believe in religion before, whereas (52b) does. The same contrast is seen in (53), where the RT is *nashi* 'then': (53a) does not presuppose that I did not believe in religion before then, whereas (53b) does.

我 信 (52)教. a. Wo xin jiao. Ι believe religion 'I believe religion.' b. 我 信 教 Wo xin jiao Ι believe religion 'I believe religion, a new state.'

了.

le.

SFAP

(53)我 那時 信 教. a. Wo nashi xin jiao. then believe religion 'I believed religion at that time.'

> 了. b. 我 那時 信 教 Wo nashi xin jiao le. religion I then believe **SFAP**

'I believed religion at that time, a new state.'

Ne and laizhe do not encode [change of state], and thus there is no such presupposition contrast between their absence and presence in a sentence.

Because of this [change of state], S-le is incompatible with any predicate that does not encode a change of state, e.g., a generic eventuality, as shown in (54) (also Li & Thompson 1981: 291-292). It thus selects [-GEN], like *laizhe* and *ne*.

(54)西瓜 H 橘子 大 (*了). Xigua hi juzi da (*le). watermelon than orange big **SFAP** 'A watermelon is bigger than an orange.'

Moreover, S-le has also been claimed to express a [currently relevant state] (Li & Thompson 1981: 238). Zhu (1982: 209) uses the meaning contrast between (55a) and (55b) to show this alleged meaning of S-le. (55a) has no S-le and it is vague about whether I still live here. (55b), however, has S-le, and it means that the state of my living here is still true now. However, if we consider examples in which the RT is clearly not UT, the alleged [currently relevant state] meaning is gone. In (55c), yijing ba ge yue 'already eight months' was true at the RT nashi 'then', but not the UT. In (55d), the temporal length wu nian 'five years' was also true at the RT *nashi*, but not necessarily true at the UT.

(55)在 這兒 住了 年. 我 Ħ. a. Wo zai zher zhu-le nian. wu Ι live-PRF at here five year 'I {have lived/lived} here for five years.' 這兒 b. 我 在 住了 年 了. Ħ. Wo zai zher zhu-le nian le. wii I here live-PRF five at year **SFAP** 'I have lived here for five years.' (Zhu 1982: 209) 老二, 那時 我 懷著 已經 c. 正 八 個 Nashi wo zheng huai-zhe ba lao-er, yijing ge then I SMLT pregnant-SMLTsecond.child already eight CL月 了. yue le. month SFAP 'At that time, I was pregnant with the second child, and the pregnancy was already eight months.' (Li & Thompson 1981: 291) d. 那時 我 在 這兒 住了 Ħ. 年 了. Nashi wo zai zher zhu-le wu nian le. then here live-PRF five vear **SFAP**

'I had lived here for five years by that time.'

Theoretically, since the RT of S-le can be any time (see (4)), there cannot be any intrinsic [currently relevant state] meaning in S-le. All predicates are relevant to their RTs. If so, how is the contrast between (55a) and (55b) explained? My observation is that whenever S-le follows a quantified temporal expression, the adverb *yijing* 'already' may precede the temporal expression immediately, as seen in (55c). The adverb may also precede *wu nian* 'five years' in (55b) and (55d). Since Chinese adverbs always precede a predicate, I claim that in (55b-d), the temporal expression alone is the predicate, and the expression to the left of the optional *yijing* is the subject of the temporal predicate, and the subject denotes an eventuality. Thus (55b) has the constituency in (56) (cf. (ii) in footnote 4).

The alleged [currently relevant state] of (55b) is an effect of the anchoring of S-le's [change of state] semantics on the matrix predicate wu nian 'five years'. The RT is the UT in (55b) by default. The example means that five years is a new state now. In contrast, the temporal expression is buried as an adverbial (or secondary predicate) in (55a). The example simply makes the assertion about my living here for five years, without specifying that five years is a new state to the implicit RT. A new state-encoding expression is focused and thus seems to be more "relevant" to the RT than other parts of the sentence.

(57) shows that unlike S-le, *ne* and *laizhe* are not compatible with a quantified temporal predicate, which allows *yijing* to its immediate left.

Li & Thompson (1981: 244) also list many uses of S-le, but they do not present any clear criteria to distinguish them. There are many works on S-le (e.g., Soh 2009). It is beyond the scope of this paper to elaborate its semantics. I simply conclude that S-le denotes [change of state], and is compatible with a quantified temporal predicate, unlike ne and laizhe.

Summarizing, in this subsection, I have shown that all three SFAPs select [-GEN], *ne* and *laizhe* also select [+SMLT], and S-le denotes [change of state], but the other SFAPs do not.

4.2 The syntactic position of SFAPs

4.2.1 Differences of SFAPs from auxiliaries

SFAPs are different from auxiliaries. First, auxiliaries in the language, e.g., *you* 'have' and *shi* 'be', as well as verbs, may be preceded by a negation word immediately, as shown in (58a) and (58b), but a SFAP may not, as shown in (58c).

(58)阿傑 不 분 在 牛氣. a. Ajie bu shi shengi. zai Ajie not be SMLT angry 'Ajie is not angry.' b. 阿傑 沒有 書. 看 shu. Ajie meiyou kan Ajie not read book 'Ajie did not read a book.'

c. *阿傑看書{不/沒}呢.

*Ajie kan shu {bu/mei} ne.
Ajie read book not/not SFAP

Second, auxiliaries, as well as verbs, may have the so-called A-not-A form in a polar question, i.e., a reduplicated form with a negation morpheme between the reduplicant and the base, such as *shi-bu-shi* 'be-not-be' in (59a) and *you-mei-you* 'have-not-have' in (59b). However, as seen in (59c), a SFAP may not have an A-not-A form.

- (59) a. 阿傑 是不是 在 生氣?
 Ajie shi-bu-shi zai shenqi?
 Ajie be-not-be SMLT angry
 'Is Ajie angry.'
 - b. 阿傑 有沒有 看 書?
 Ajie you-mei-you kan shu?
 Ajie have-not-have read book
 'Did Ajie read the book?'
 - c. *阿傑看書 呢沒呢?

 *Ajie kan shu ne-mei-ne?

 Ajie read book SFAP-not-SFAP

Third, SFAPs may occur with an auxiliary in the same sentence, indicating that they are in different syntactic positions.

(60)阿傑 看 書 呢? 是不是 a. Ajie shi-bu-shi kan ne? shu Aiie be-not-be read book **SFAP** 'Is Ajie reading a book?' 阿傑 是不是 b. 書 看 來著? shi-bu-shi Aiie kan laizhe? shu Ajie be-not-be read book **SFAP** 'Was Ajie reading a book?' 阿傑 是不是 書 了? c. 看 Aiie shi-bu-shi le? kan shu Ajie be-not-be read book **SFAP** 'Did Ajie read a book?'

In contrast, the three SFAPs never co-occur in the same clause, as shown in (61). Their mutual exclusive relation suggests that they compete for the same syntactic position.

*阿傑看 (61)書 來著 呢. a. *Ajie kan shu laizhe ne. Ajie read book SFAP SFAP b. *阿傑看 書 呢 來著. *Ajie kan shu laizhe. ne Ajie read book SFAP SFAP *阿傑看 書 呢 了. c. *Ajie kan shu le. ne Ajie read book SFAP SFAP

4.2.2 The complementizer status of SFAPs

4.2.2.1 SFAPs as complementizers

I support the generally accepted assumption that SFAPs are complementizers. No complementizer of the language (e.g., *a*, *ma*, *ba*) may be preceded by a negation word immediately, and may have an A-not-A form. In this respect, SFAPs are similar to other complementizers in the language, and thus the ungrammaticality of (59c) and (61) is explained.

Moreover, as expected from its complementizer status, a SFAP scopes over the subject of the introduced clause. However, based on two arguments, Erlewine (2017) proposes a low-scope analysis of S-le, claiming that S-le does not scope over a subject. The first argument is about licensing an indefinite reading of a WH-word. In addition to a question reading, a WH-word may have an indefinite reading under certain conditions, including in the scope of S-le (Li 1992). In (62a), shenme 'what' may not be interpreted as 'something', but in (62b), in the presence of S-le, it does have such a reading. Similarly, in (63a), shenme ren 'what person' may not be interpreted as 'someone', but in (63b), in the presence of S-le, it may.

- (62) a. *Ta kandao shenme.

 he see what

 Intended: 'He saw something.'
 - b. Ta kandao(-le) shenme le.
 he see-PRF what SFAP
 'He saw something.' (Li 1992: 133)
- (63) a. *Shenme-ren de xiaohaina cuo dongxi. what-man DE child take wrong thing Intended: 'Someone's child has taken the wrong thing.'
 - b. Shenme-ren de xiaohaina cuo dongxi le. what-man DE child take wrong thing SFAP 'Someone's child has taken the wrong thing.' (Li 1992: 137)

I have observed that *ne* and *laizhe* also license indefinite readings of WH-words, including WH-subjects, as seen in (64).

- (64) a. 甚麼人 說 話 {了/呢/來著}.

 Shenme-ren shuo hua {le/ne/laizhe}.

 what-person say speech SFAP/SFAP/SFAP
 'Someone {has spoken/is speaking/spoke}.'
 - b. 甚麼人 笑 我 {了/呢/來著}.

 Shenme-ren xiao wo {le/ne/laizhe}.

 what-person laugh I SFAP/SFAP/SFAP

 'Someone {has laughed/is laughing/laughed} at me.'

Notice that unlike *shenme-ren* 'what-person', *shui* 'who' does not have an indefinite reading in the presence a SFAP (although it may have such a reading in other contexts), regardless whether it is in the object position or subject position, as shown in (65a) and (65b), respectively. This lexical contrast between the two WH-words does not affect the general function of SFAPs. Thus, when the low-scope analysis of S-*le* uses (65b) to claim that S-*le* does not scope over a subject, it does not capture Li's (63b) and our (64) above, which are counterexamples to the analysis.

(65) a. *他 看到 誰 {了/呢/來著}.

```
*Ta
                           {le/ne/laizhe}.
             kandao shui
       he
             see
                     who
                           SFAP/SFAP/SFAP
       Intended: 'he saw someone.'
       *谁
b.
             說
                     話
                            {了/呢/來著}.
                                                (cf. (64a))
                            {le/ne/laizhe}.
       *Shui shuo
                    hua
                     speech SFAP/SFAP/SFAP
       who say
       Intended: 'Someone {has spoken/is speaking/spoke}.' (Erlewine 2017: (29b))
```

The second argument for the low-scope analysis of S-le is that if the disjunction in (66a) must exclude the subject, then, in the first disjunct, S-le seems to scope over the predicate only, excluding the subject. The ungrammaticality of (66b) (Erlewine 2017: (35)) is used to support the analysis, assuming that the first disjunct may not have the subject ni 'you'. However, (66b) is marginal because it violates the parallelism requirement of coordination: the first disjunct has an overt subject but the second one does not (Zhang 2010: Ch. 7). (66c) may have a similar syntactic structure as (66b), but it is fine. Importantly, in (66c), the subject ni must be included in the first disjunct, in order to contrast with the subject of the second disjunct. Moreover, in (66d), the presence of the agent-oriented adverb zixide 'carefully' in the first disjunct indicates that the agent subject must also be present in the disjunct. (66a) and (66d) should have a similar structure. Such examples do not show that S-le may not scope over a subject.

(66)	a.	你 Ni you 'Did y	(是) (shi) be	想 xiang miss to miss	家 jia home	le SFAP	還是 haishi or	跟 gen with	男朋友 nanper boyfrie	ngyou end	分手了? fenshou-le? break.up-PRF
	b.	是 是	你	想 想	家	了 了	還是	i your c	跟	男朋友 男朋友	7
	0.	*Shi	ni _i		jia	le	haishi	nro:	gen	nanpei	
		be	you	miss	home	SFAP	or	Pro	with	boyfri	
		分手了	-							,	
		fensho	ou-le?								
		break.	break.up-PRF								
	c.	是	你	想	家	了	還是	別人	欺負	你	了?
		Shi	ni	xiang	jia	le	haishi	bieren	qifu	ni	le?
		be	you	miss	home	SFAP	or	other	bully	you	SFAP
		'Did y	ou start	to miss	home of	or other	s have b	oullied y	/ou?'		
	d.	你	(是)	仔細地	<u>t</u>	讀了		那	本	書	了
		Ni	(shi)	zixide		du-le		na	ben	shu	le
		you	be	careful	lly	read-P	RF	that	CL	book	SFAP
		還是	聽	別人	談過		那	本	書?		
		haishi	ting	bieren	tandao	-guo	na	ben	shu?		
		or hear other talk-EXP		ΧP	that	CL	book				
		'Did you read that book carefully or hear others talking about it?'									

Therefore, neither the WH-word nor the *haishi* disjunction consideration challenges the complementizer status of SFAPs.

The fact that the SFAP *ne* licenses indefinite readings of WH-subjects, as seen in (64), also casts a doubt on Simpson & Wu's (2002: 297) proposal that *ne* is base-generated below the preverbal SMLT marker *zai*, before VP moves to the Spec of the projection headed by *ne* (FocP), as shown in (67). In their analysis, they do not specify the subject position, and thus it is not clear how to make *ne* c-command the subject.

(67) $\left[A_{\text{SpP}} zai \left[F_{\text{OCP}} VP_{i} \left[F_{\text{OC}}, ne t_{i} \right] \right] \right]$

(Simpson & Wu 2002: 297)

A similar doubt is cast on another non-complementizer analysis of SFPs, the secondary predicate analysis (Tang 2015). Tang claims that a clause and its SFP are hosted by the Spec and complement of a functional head, respectively. Obviously, a SFP never c-commands any element inside the clause, in this analysis.

4.2.2.2 Finite and nonfinite complementizers

If SFAPs are complementizers and their occurrence signals the finite status of the clause, the finiteness distinction is clausal, rather than verbal, in the language. It has been recognized that it is the whole clause (Givón 1990: 853) or the head of a clause (IP or FinP) that is responsible for the finiteness distinction, although the distinction may be marked on verb morphology in some languages (Bisang 2001, Klein 2006, 2009; Ritter & Wiltschko 2014). What I have shown in this paper is that although Chinese has no finite marker on a verb, it has finite complementizers. SFAPs are similar to the finite complementizer *that* in English, although the former may occur in either matrix or embedded clauses, whereas the latter occurs in embedded clauses only. In Ritter & Wiltschko (2014), the finiteness of imperatives and counterfactual sentences in the languages they studied is licensed by a functional head in the C-domain.

According to Rizzi (1997: 327, fn. 4), the head of FinP in the C-domain can be either [+fin] or [-fin]. I thus assume that a SFAP heads FinP with [+fin].

As for FinP with [-fin], it can be realized by *for* in English, the nonfinite prepositional complementizer *di* in Italian (Rizzi 1997: 304), and the nonfinite prepositional complementizer *dui* 'to' in Chinese. It also licenses PRO (Rizzi 1997: 304, 328; see Zhang 2016 for Chinese).

Thus, in Chinese, SFAPs are finite complementizers exclusively, and *dui* is a nonfinite complementizer exclusively. Two more issues are left for further research. One is why SFAPs, as well as other SFPs, are clause-final, but *dui*, as well as some complementizers such as *yinwei* 'because', is clause-initial. Another is whether Chinese has IP, which is also a locus of finiteness (cf. Ernst 1994). In Rizzi (1997), FinP is higher than IP, and Fin and I may share some features cross-linguistically (see 4.3 below).

4.2.3 The low complementizer status of SFAPs

SFAPs are different from other SFPs, which are of a higher-level in the C-domain. As pointed out by Zhu (1982), when a SFAP occurs with a SFP of another type, its position is consistently lower than the latter. The examples in (68) illustrate this (also see (2) for S-*le*; cf. Hu 1981: 348). This is expected from the low position of FinP in the C-domain.

(68)	a.	他	那時	寫著	作業	來著	嗎?
		Ta	nashi	xie-zhe	zuoye	laizhe	ma?
		he	then	write-SMLT	homework	SFAP	Q
	'Was he writing the homework at that time?'						
	b.	*他	那時	寫著	作業	嗎	來著?
		*Ta	nashi	xie-zhe	zuoye	ma	laizhe?
		he	then	write-SMLT	homework	Q	SFAP
	c.	他	那時	寫著	作業	呢	吧?
		Ta	nashi	xie-zhe	zuoye	ne	ba?
		he	then	write-SMLT	homework	SFAP	Q
'Isn't he writing the homework at that time?'							
	d.	*他	那時	寫著	作業	吧	呢?

*Ta nashi xie-zhe zuoye ba ne? he then write-SMLT homework Q SFAP

Moreover, Li (1992: 137) notes that if a WH-word is in "an external subject position", as in (69), its intended indefinite reading cannot be licensed by S-le.

(69) *甚麼人, 小孩 拿 錯 東西 了.

*Shenme-ren, xiaohaina cuo dongxi le.
what-man child take wrong thing SFAP
Intended: 'Someone, (his) child has taken the wrong thing.' (Li 1992: 137)

The position of *shenme-ren* 'what-man' in (69) is a topic position. The restriction might show that a SFAP does not c-command a topic, which is hosted by TopP. TopP is higher than FinP (Rizzi 1997). Thus, the position of an SFAP is lower than Top. However, an alternative account for (69) can be that an intended indefinite nominal may not be a topic. Thus, such an example needs to be studied with care.

4.3 The sense of aspect in SFAPs

Although the term SFAP contains "aspect", SFAPs are different from aspect markers in predicates. Not only the former is clause-final, whereas the latter is not, but also the two kinds of elements have different distributions. The former may not occur in nonfinite clauses (Section 3), whereas the latter may (e.g., -le in (46h)). Various aspect suffixes may occur in the complement of a control verb (Li 1990: 19). In many languages, aspectual distinction may be found in nonfinite clauses (e.g., Bisang 2001: 1401), as seen in (70) (Grano 2017: (20)). Therefore, as pointed out by Bisang (2001: 1410), Y. Huang's (1992: 252) argument against the finiteness distinction in Chinese, which is based on the distribution of aspect suffixes, is not pertinent.

- (70) a. John believes [Bill to have robbed a bank].
 - b. John claims [to have seen a ghost].
 - c. To win the prize, John needs [to have collected all five tokens].

Since aspect suffixes are not finite markers but SFAPs are, their relation is different from the relation between the markers that realize the head of finite IP and those that realize the head of finite FinP in many languages. Rizzi (1997: 284) mentions that languages can vary in the extent to which IP information is replicated in complementizers, e.g., some languages replicate mood distinctions (e.g., special subjunctive complementizers in Polish), some replicate subject agreement (e.g., in different Germanic varieties), and some replicate tense distinctions (e.g., in Irish).

However, as seen in 4.1, SFAPs, as finite markers, may have their selections on aspect features. It is in this perspective that SFAPs have something to do with aspect.

SFAPs' possible selection on aspect features also distinguishes them from other SFPs, which do not have aspect feature selection. For instance, the question marker *ma* is compatible with both a generic aspect in (71a) and a non-generic aspect in (71b).

嗎? (71)西瓜 比 橘子 大 a. Xigua bi juzi da ma? watermelon than orange big Q 'Is a watermelon bigger than an orange?' 嗎? b. 你 在 找 人

Ni zai zhao ren ma? you SMLT search person Q 'Are you looking for someone?'

In addition to the selection issue, in this section, I have argued that SFAPs are complementizers that head FinP, which is lower than the projection for question particles.

5. Finiteness as a language universal not seen in other cognitive systems

In this section, I try to probe the question why finiteness distinction is universal. It has been generally assumed that a finite marker for a finite clause is obligatory (e.g., Bisang 2001, 2007: Ritter & Wiltschko 2014). For instance, the deictic forms of finite makers explored by Ritter & Wiltschko (2014) are obligatory. Although SFAPs are finite clause markers in Chinese, they are not obligatory, and may not occur in sentences that express generic eventualities, because of their aspectual feature selection (4.1). Since languages like Chinese do not have obligatory finite markers, but the finiteness distinction is still attestable, a precise theory about the finiteness distinction is called for.

5.1 SOPs and HOPs

Nonfinite clauses are intrinsically subordinate or satellite clauses. They have their restrictions or limitations in syntax and semantics that are not found in finite clauses. Finiteness distinction should be identified with respect to syntactic and semantic capacity of a clause, and the capacity can be attested, but it does not have to be marked overtly.

A finite clause can be viewed as a speaker-oriented clause. It exhibits speaker-oriented property (SOP) like the following:

SOP1: A SpOA may occur, which encodes the speaker's evaluation of the eventuality expressed by the clause (3.4) (see Beyssade & Marandin 2006: 57).

SOP2: An epistemic modal may occur, which expresses the attitude of the speaker with respect to the truth-value of the proposition expressed (3.5).

SOP3: It allows the speaker to implement a speech act directly (e.g., using an exclamative to express the speaker's attitude and using an imperative to give an order of the speaker). "Finiteness is connected to the 'illocutionary status' of the sentence." (Klein 2009: 338) (see Beyssade & Marandin 2006 for the speaker's commitment in various speech acts).

SOP4: It gives the speaker the freedom to decide the interpretation of a null subject, and thus give a deictic interpretation to a null subject (*pro*) in *pro*-drop languages (3.2).

In contrast, a nonfinite clause is an anti-speaker-oriented clause. It exhibits none of the SOPs mentioned above. For instance, no silent subject may have a deictic interpretation in a nonfinite clause, even in *pro*-drop languages (cf. SOP4). A nonfinite clause instead presupposes the occurrence of a higher clause and thus is intrinsically dependent (3.1). Accordingly, it exhibits anaphoric (Bianchi 2003) or higher-clause-oriented property (HOP) like the following, which is not found in a finite clause:

HOP1: The interpretation of a pronominal subject depends on an argument of the higher clause. For example, the interpretation of a PRO subject of the clause under a control verb must be the same as that of an argument of the control verb (see (32) and Zhang 2016 for Chinese). PRO can be taken to be a kind of anaphor (Borer 1989).

HOP2: The temporal readings may be restricted by the higher clause. For instance, Todorović & Wurmbrand (2017: Sec. 3) report that in English, embedded finite complement clause can typically occur with any temporal orientation, as in (72a). Infinitives, on the other hand, show temporal restrictions imposed by the matrix verb. In (72b,c), under the same propositional verb *believe* or *claim* as in (72a), the nonfinite clause may not have a future reading, in construal with *tomorrow*. The nonfinite complement of a verb such as *try*, *begin*,

and *seem* also rejects a temporal modifier that refers to a time different from the matrix event time, and can receive only a simultaneous interpretation, as in (72d, e) (Wurmbrand 2014a: 436; see Sundaresan 2014: 68 for examples of other languages).

- (72) a. John {believes/claims} that Mary {slept well/will sleep well/is sleeping right now}.
 - b. *John believes Mary to sleep well tomorrow. *Future
 - c. *Leo claims to sleep/be sleeping in the garage tomorrow. *Future
 - d. Yesterday, John tried to sleep (*tomorrow).
 - e. The bridge {began/seemed} to tremble (*tomorrow).

HOP3: It is possible that the clause boundaris are not as visible as those of a finite clause in some syntactic or semantic dependencies. For instance, a nonfinite clause can be grouped with the higher clause (i.e., the effects of various types of restructuring; see Wurmbrand 2014b). Also, the clause boundaries of a nonfinite clause can be invisible for the effect of Condition B, and therefore, a non-reflexive pronoun subject may not be co-referential with the subject of the immediate higher clause (3.3).

HOP4: Patterns of embeddedness are observed (Lehmann 1988), e.g., nominalization, including absolutive adverbials (e.g., *John was deeply tanned*, *just having returned from a vacation*. Also, *Having long arms*, *John can touch the ceiling*; cited from Ramchand & Svenonius 2014: 155), the subject being case-marked by the higher clause (ECM), and the whole clause being Case-marked, like a nominal (see 2.2.8 and footnote 6).

In addition to the typical SOPs and HOPs above, tense, as an instance of deictic anchoring (e.g., Bianchi 2003, Giorgi 2010), is typically found in finite clauses. However, according to Todorović & Wurmbrand (2017: Sec. 1), "neither a [+FINITE] \approx [+TENSE], nor a [-FINITE] \approx [-TENSE] correlation can be maintained since finite clauses can be tenseless (as in sequence of tense contexts), and non-finite clauses can be tensed." They cite the studies of Stowell (1982), Pesetsky (1992), Bošković (1997), Wurmbrand (2001, 2014a), among others, to support the claim. Examples in which nonfinite verbs are tense-marked can be found in Tamil (McFadden & Sundaresan 2014: 9) and Bosnian/Croatian/Serbian (Todorović & Wurmbrand 2017), among other languages.

5.2 Finiteness vs. rootness

HOPs, by definition, are exhibited in dependent clauses exclusively, but SOPs are not specific about where the properties may occur. All SOPs listed in 5.1 can be seen in either matrix or embedded finite clauses. For instance, regarding SOP3, in addition to embedded declaratives and interrogatives, embedded imperatives are seen in many languages, including Korean, Japanese, Old Scandinavian, Colloquial German, Slovenian, Ancient Greek, Mbyá, and even English (see Stegovec & Kaufmann 2015 for examples and references). On the other hand, question particles in Chinese may not occur in an embedded clause (e.g., Paul 2015), being root markers. Finiteness distinction is thus different from rootness distinction. Nevertheless, if an element occurs in root clauses only, it is not related to any HOP, and thus it plays the role of a finite marker. Chinese has several root-clause SFPs that are speaker-oriented. Wiltschko (2017) correctly claims that such SFPs are finite markers (e.g., the new information SFP *a*). But if we restrict our research to such SFPs, we might conclude that Chinese has no finite embedded clause, countray to the fact (Witschko 2017: 103 leaves this as a further question). In contrast, SFAPs are clearly finite markers, rather than root markers.

5.3 The universality of finiteness distinction

While many works (e.g., Rizzi 1997, Cinque 1999, Ramchand & Svenonius 2014: 164, Ritter & Wiltschko 2014, Witschko 2014) locate the possible syntactic positions of IP and FinP as the locus of finiteness distinction, they do not discuss how to distinguish finite from nonfinite clauses in languages without obligatory finite markers. Our SOP-HOP contrasts give an explicit guide to make the distinction.

Our understanding of finiteness distinction is close to Bianchi (2003). Based on PRO (an example of HOP1) and tense in tense languages, Bianchi proposes a logophoric analysis of the finiteness distinction. She claims that a finite clause is anchored directly to the Speech event, which constitutes the external "centre of deixis". Our identification of finite clause as a clause with SOPs is compatible with and is more comprehensive than her analysis.

Our understanding that finite clauses are speaker-oriented recognizes the impact of the speaker in the syntax and semantics of such clauses. Since speaker is the executor of language, the recognition is compatible with Klein's (2009: 335, 341) following claim that finiteness is specific to linguistic system, in contrast to other manifestations of the human mind:

It is not trivial how finiteness could be related to other 'parts of our mind.' All known languages can express temporal and spatial relations, and all known languages have devices to relate the meaning of many expressions to the here-and-now of the speech situation. But temporality, spatiality, or deictic anchoring are also found in other domains of our cognition. It is also clear that compound linguistic expressions exhibit a 'hierarchical' structure, as described in terms of parts of speech, constituent structure, etc.; but other areas of human cognition and action exhibit hierarchical structures as well, for example, composing a string trio or preparing a seven-course dinner. This is not true for finiteness, and therefore it might indeed be a purely linguistic universal. (Klein 2009: 335-336)

Klein's statement leads us to an answer to the question asked at the beginning of this section: why finiteness distinction is universal. A plausible answer is that the role of speaker in language is universal, SOPs are universal, and thus the finiteness distinction is universal.

5.4 The speaker-oriented domain

How is the presence of a SOP represented in syntax? Or, how is the capacity of a finite clause encoded syntactically? Finite complementizers themselves, e.g., *that* in English and SFAPs in Chinese, do not have SOPs. They are just formal markers of finite clauses. Also, the possible selection of a SFAP on aspect features does not mean that the selected features are SOPs (4.3). The role of a finite clause marker is different from the possible interactions between the marker and other elements of a clause. If a finite clause is identified by SOPs in all languages, we need to consider SOP-denoting functional categories. Although both finite and nonfinite clauses can be represented by FinP in the C-domain, nonfinite ones never have the highest group of functional projections in the C-domain, which includes the following (Cinque 1999: 130):

(73) Speech Act » Evaluative » Evidential » Epistemic

SOPs are associated with the projections in (73). For instance, Speech Act Projection has been discussed by many (e.g., Speas & Tenny 2003; Speas 2004; Hill 2007; Haegeman 2014). Also, a SpOA is licensed by the Evaluative projection in (73), but a subject-oriented adverb is licensed by the projection that hosts the subject. The latter projection is below the C-domain, and thus if a SpOA occurs with a subject-oriented adverb, its syntactic position is higher than the latter (Ernst 2014: 110). Also, the occurrence of an epistemic modal is licensed

by the Epistemic projection (cf. in Hacquard 2006, an epistemic modal is bound by the higher speech event). It is plausible to assume that the structure of a finite clause has the group of projections in (73), whereas that of a nonfinite clause does not, although it may have IP, FinP, and even FocusP and TopP. A nonfinite clause may contain a focus in Hungarian (Szabolcsi 2009) and Chinese (e.g., it is marked by *ye* 'even' in V-even-not-V construction; see 2.2.5), a topic in Italian (Rizzi 1997: 309) and Chinese (Zhang 2016; Li 2017), and an operator that has undergone A-bar movement, as in (27b) and examples such as *I decided who to invite* (Adger 2007: 31). The group of projections in (73) provides a speaker dimension to the syntax-semantics of a sentence, beyond the dimension of the eventuality participants (i.e., vP or called theta-domain) and the dimension that covers the lower projections of the C-domain and other functional projections. Accordingly, the generalization that finite clauses have richer structures than nonfinite ones (e.g., Wurmbrand 2001; Ramchand & Svenonius 2014: 162; McFadden & Sundaresan 2014; Grano 2015) is derived.

If the group of functional projections in (73) is crucial for a finite clause, while some other projections in the C-domain are not, and if finiteness distinction is a language universal not seen in other cognitive systems, the boundary between the so-called C-domain and a lower domain should not be more important than the boundary between the group in (73) and other functional projections. In other words, we need to identify the group in (73) as a speaker-oriented domain, a domain available for finite clauses only.

The separation of the group in (73) from other functional projections is independently attested in sign languages (Bross & Hole 2017). In German Sign Language, it has been found that "high operators, such as speech-act marking, evaluation, or epistemic modality, are expressed using non-manual markers of the upper face and are signed simultaneously with other signs ('layering')," in contrast to both middle-level operators, which are expressed through layering with the mouth and often with the shoulders, and low-level operators, which are realized manually and make use of certain concatenation strategy, instead of layering. Thus, a speaker-oriented domain has its clear range of non-manual markers.

6. Conclusions

Although Chinese has no tense or case system, it still has finiteness distinction. I have shown that the distinction is seen in the restrictions on the distribution of SFAPs. SFAPs may not occur in eight types of embedded clauses: the complement of a control verb, the complement of a raising verb, the complement lai 'come' and qu 'go', the complement of a non-epistemic modal, the V-even-not-V adverbial, Small Clauses, gapless relative clauses, and the complement of the prepositional complementizer dui 'to'. These clauses show properties of nonfinite clauses in other languages. They are intrinsically embedded, ban pro-drop, their clause boundaries may be invisible for binding, and they disallow a SpOA and an epistemic modal. The study has concluded that SFAPs are finite clause complementizers. It has also argued that finite clauses show speaker-oriented properties whereas nonfinite ones do not; instead, nonfinite clauses exhibit higher-clause-oriented properties. It has clarified that it is the syntax-semantics capacity that defines the finite status of a clause, whether or not the capacity has a morphological marker. The identification of the role of speaker in finiteness distinction leads us to understand why finiteness distinction is universal (Rizzi 1997: 284; Klein 2006, 2009; Ritter & Wiltschko 2014; Wiltschko 2014) and why "finiteness is specific to linguistic systems" (Klein 2009: 242).

References

Adger, David. 2007. Three domains of finiteness: A minimalist perspective. In I. Nikolaeva (ed.), *Finiteness: theoretical and empirical foundations*, 23–58. Oxford University Press: Oxford.

- Beyssade, Claire, and Jean-Marie Marandin. 2006. The speech act assignment problem revisited: Disentangling speaker's commitment from speaker's call on addressee. In O. Bonami & P. Cabredo Hofherr (eds.), *Empirical issues in syntax and semantics* 6, 37–68.
- Bianchi, Valentina. 2003. On finiteness as logophoric anchoring. In Jacqueline Guerón and Liliane Tasmowski (eds.), *Temps et point de vue / tense and point of view*, 213–246. Nanterre: Université Paris X.
- Bisang, Walter. 2001. Finite vs. non finite languages. In M. Haspelmath, E. König, W. Oesterreicher, and W. Raible (eds.), *Language Typology and Language Universals*, vol. 2, 1400–1413. Berlin: Mouton de Gruyter.
- Bisang, Walter. 2007. Categories that make finiteness: discreteness from a functional perspective and some of its repercussions. In Irina Nikolaeva (ed.), *Finiteness: Theoretical and empirical foundations*, 115–137. Oxford: Oxford University Press.
- Booij, Geert. 2007. The grammar of words. Oxford: Oxford University Press.
- Borer, Hagit. 1989. Anaphoric AGR. In Osvaldo Jaeggli and Ken Safir (eds.), *The Null Subject Parameter*, 69–109. Dordrecht: Kluwer.
- Bošković, Željko. 1997. *The syntax of nonfinite complementation*. Cambridge, MA: MIT Press. Bross, Fabian, & Daniel Hole. 2017. Scope-taking strategies and the order of clausal categories in German Sign Language. *Glossa*, to appear.
- Chamoreau, Claudine & Zarina Estrada-Fernámdes. 2016. *Finiteness and nominalization*. Amsterdam: John Benjamins.
- Chan, Marjorie. 1980. Temporal Reference in Mandarin Chinese: An Analytical Semantic Approach to the Study of the Morphemes. *Journal of the Chinese Language Teachers Association* 15, 33–79.
- Chang, Yung-Cheng. 2013. On the properties of Chinese degree adverbs *man* and *tai*. MA thesis, National Chung Cheng University.
- Chao, Yuan R. 1968. A Grammar of Spoken Chinese. Berkeley: University of California Press.
- Chomsky, Noam. 1973. Conditions on transformations. In Stephen A. Anderson and Paul Kiparsky (eds.), *A Festschrift for Morris Halle*, 232–285. New York: Holt, Rinehart and Winston.
- Chomsky, Noam. 1981. Lectures on Government and Binding, Dordrecht: Foris.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. Oxford: Oxford University Press.
- Constant, Noah. 2014. *Contrastive topic: Meanings and realizations*. PhD dissertation, University of Massachusetts Amherst.
- Den Dikken, Marcel. 2006. Relators and linkers: The syntax of predication, predicate inversion, and copulas. Cambridge, MA: MIT Press.
- Dimroth, Christine, and Ingeborg Lasser. 2002. Finite options: how L1 and L2 Learners cope with the acquisition of finiteness. *Linguistics* 40(4). 647–651.
- Eide, Kristin Melum. 2005. Norwegian Modals. Berlin: Mouton de Gruyter.
- Erlewine, Michael Yoshitaka. 2017. Low sentence-final particles in Mandarin Chinese and the Final-over-Final Constraint. *Journal of East Asian Linguistics* 26(1). 37–75.
- Ernst, Thomas. 1994. Functional categories and the Chinese Infl. *Linguistics* 32(2). 191–212.
- Ernst, Thomas. 2002. The Syntax of Adverbs. Cambridge: Cambridge University Press.
- Ernst, Thomas. 2009. Speaker-oriented adverbs. *Natural Language & Linguistic Theory* 27(3). 497–544.
- Ernst, Thomas. 2014. The syntax of adverbs. In Andrew Carnie, Yosuke Sato and Daniel Siddiqi (eds.), *The Routledge handbook of syntax*, 108–130. London: Routledge.
- Feng, Shengli. 2009. A theoretical exploration of prosodic syntax. *Yuyanxue Luncong* 39. 204–244. Beijing: Peking University Press.

- Fu, Jingqi. 1994. *On deriving Chinese derived nominals: Evidence for parallel morphology*. PhD dissertation, University of Massachusetts at Amherst.
- Giorgi, Alessandra. 2010. *About the speaker: Towards a syntax of indexicality*. Oxford: Oxford University Press.
- Givón, Talmy. 1990. *Syntax: A functional-typological introduction* II. Amsterdam: John Benjamins.
- Grano, Thomas. 2015. Control and restructuring. Oxford: Oxford University Press.
- Grano, Thomas. 2017. Finiteness contrasts without tense? A view from Mandarin Chinese. Ms., Indiana University.
- Gretsch, Petra, and Clive Perdue. 2007. Finiteness in first and second language acquisition. In Irina Nikolaeva (ed.), *Finiteness: theoretical and empirical foundations*, 432–484. Oxford: Oxford University Press.
- Grimshaw, Jane, and Sten Vikner. 1993. Obligatory adjuncts and the structure of events. In Eric Reuland and Werner Abraham (eds.), *Knowledge and language*. *Vol. II, Lexical and Conceptual Structure*, 143–155. Dordrecht: Springer.
- Hacquard, Valentine. 2006. Aspects of modality. Ph.D dissertation, MIT.
- Haegeman, Liliane. 2004. The syntax of adverbial clauses and its consequences for topicalisation, manuscript, University Charles de Gaulle, Lille.
- Haegeman, Liliane. 2014. West Flemish verb-based discourse markers and the articulation of the Speech Act layer. *Studia Linguistica* 68(1). 116-139.
- Hill, Virginia. 2007. Vocatives and the pragmatics-syntax interface. *Lingua* 117(12). 2077–2105.
- Hole, Daniel. 2017. A crosslinguistic syntax of scalar and non-scalar focus particle sentences: the view from Vietnamese and Chinese. *Journal of East Asian Linguistics*, to appear.
- Hou, Xuechao. 1998. *Xiandai Hanyu Xuci Cidian* [Functional words in Modern Chinese], Beijing: Peking University Press.
- Hu, Jianhua, Haihua Pan, and Liejiong Xu. 2001. Is there a finite vs. nonfinite distinction in Chinese? *Linguistics* 39(6). 1117–48.
- Hu, Mingyang. 1981. Beijing-hua de yuqi zhuci he tanci [mood markers in Beijing dialect], *Zhongguo Yuwen* 1981(5). 347–350.
- Huang, C-T. James. 2016. The Syntax and Semantics of Prenominals: Construction or Composition? *Language and Linguistics* 17(4). 431–475.
- Huang, Yan. 1992. Review of: Li, Audrey Yen-hui. 1990. Order and constituency in Mandarin Chinese. Dordrecht: Kluwer. *Journal of Linguistics* 28. 251–256.
- Huang, Yan. 1994. *The syntax and pragmatics of anaphora*. Cambridge: Cambridge University Press.
- Jin, Lixin. 2005. "Mei" he "le" gongxian de jufa tiaojian [the syntactic conditions for the co-occurrence of *mei* and *le*], *Hanyu Xuexi* [Chinese Language Learning], 2005(1). 25–27.
- Kayne, Richard. 2000. Notes on English agreement. In R. Kayne (ed.), *Parameters and universals*, 187–205. Oxford: Oxford University Press.
- Kayne, Richard. 2002. Pronouns and the Antecedents. In Samuel D. Epstein and T. Daniel Seely (eds.), *Derivation and Explanation in the Minimalist Program*, 133–166. Oxford: Blackwell.
- Klein, Wolfgang. 2006. On Finiteness. In Veerle van Geenhoven (ed.), *Semantics in Acquisition*, 245–272. Dordrecht: Springer.
- Klein, Wolfgang. 2009. Finiteness, universal grammar, and the language faculty. In J. Guo, E. Lieven, N. Budwig, S. Ervin-Tripp, K. Nakamura, & S. Ozcaliskan (eds.), *Crosslinguistic approaches to the psychology of language: Research in the tradition of Dan Isaac Slobin*, 333–344. New York: Psychology Press.

- Kurniawan, Eri & William D. Davies 2015. Finiteness in Sundanese. *Oceanic Linguistics* 54(1). 1–16.
- LaPolla, Randy J. 1993. Arguments against 'subject' and 'direct object' as viable concepts in Chinese. *Bulletin of the Institute of History and Philology* 63(4). 759–813.
- Lehmann, Christian. 1988. Towards a typology of clause linkage. In John Haiman & Sandra Thompson (eds.), *Clause combining in grammar and discourse*, 181–225. Amsterdam: John Benjamins.
- Li, Charles, and Sandra Thompson. 1981. *Mandarin Chinese: A functional reference grammar*. Berkeley, CA: University of California Press.
- Li, Yen-hui Audrey. 1990. Order and constituency in Mandarin Chinese. Berlin: Springer.
- Li, Yen-hui Audrey. 1992. Indefinite wh in Mandarin Chinese. *Journal of east Asian linguistics* 1(2). 125–155.
- Li, Yen-hui Audrey. 2017. On Grano's "Finiteness contrasts without Tense in Mandarin Chinese", Presentation at the 11th International Workshop on Theoretical East Asian Linguistics (TEAL-11), Academia Sinica, Taipei, June 3-4, 2017.
- Lin, Tzong-Hong Jonah. 2011. Finiteness of clauses and raising of arguments in Mandarin Chinese. *Syntax* 14(1). 48–73.
- Lin, Tzong-Hong Jonah. 2015. Tense in Mandarin Chinese sentences. Syntax 18(3). 320–342.
- Lü, Shuxiang et al. 1999. *Xiandai Hanyu Babai Ci* [800 Words in Chinese]. Beijing: Shangwu Press (1st edition, 1980).
- Ma, Xiwen. 1987. Beijing fangyan-li *de -zhe* [-*zhe* in the Beijing dialect], *Fangyan* [Dialectology] 1987(1). 17–22.
- McCawley, James D. 1971. Tense and time reference in English. In Fillmore, C. J., Langendoen, D. T. (eds.), *Studies in Linguistic Semantics*, 97–113. New York: Holt, Rinehart, and Winston.
- McFadden, Thomas, and Sandhya Sundaresan. 2014. Finiteness in South Asian languages: an introduction. *Natural Language & Linguistic Theory* 32(1). 1–27.
- Pan, Victor Junnan. 2012. Syntactic representation of discourse-configurationality in Mandarin. Paper presented at the 45th Annual Meeting of the Societas Linguistica Europaea, Stockholm University, August 29 September 1, 2012.
- Paul, Waltraud. 2015. New perspectives on Chinese syntax. Berlin: Walter de Gruyter.
- Pesetsky, David. 1992. Zero syntax II: An essay on infinitives. Cambridge, MA: MIT.
- Plag, Ingo. 1993. Sentential complementation in Sranan: on the formation of an English-based creole language. Tübingen: Max Niemeyer.
- Ramchand, Gillian, and Peter Svenonius. 2014. Deriving the functional hierarchy. *Language Sciences* 46. 152–174.
- Ritter, Elizabeth, and Martina Wiltschko. 2014. The composition of INFL. *Natural Language & Linguistic Theory* 32.4: 1331–1386.
- Rizzi, Luigi. 1997. The Fine Structure of the Left Periphery. In L. Haegeman (ed.), *Elements of Grammar*, 281–337. Dordrecht: Kluwer.
- Ross, Claudia. 1983. On the functions of Mandarin de. *Journal of Chinese Linguistics* 11(2). 214–246.
- Simpson, Andrew, and Zoe Wu. 2002. Agreement, shells, and focus. *Language* 78(2). 287–313. Soh, Hooi Ling. 2009. Speaker presupposition and Mandarin Chinese sentence-final-le: a unified analysis of the "change of state" and the "contrary to expectation" reading. *Natural Language & Linguistic Theory* 27(3). 623–657.
- Speas, Margaret. 2004. Evidentiality, logophoricity and the syntactic representation of pragmatic features. Lingua, 144.3: 255–276.
- Speas, Margaret, and Carol Tenny. 2003. Configurational properties of point of view roles. In Di Sciullo, A. M. (ed.), *Asymmetry in Grammar*. 315–344, Amsterdam: John Benjamins.

- Stegovec, Adrian, and Magdalena Kaufmann. 2015. Slovenian Imperatives: You can't always embed what you want. In Eva Csipak & Hedde Zeijlstra (eds.), *Proceedings of Sinn und Bedeutung 19*, 621–638. Göttingen.
- Stowell, Tim. 1982. The tense of infinitives. Linguistic Inquiry 13(3). 561–570.
- Sudo, Yasutada. 2010. The syntax and semantics of indexical shifting in Modern Uyghur. Ms. MIT.
- Sundaresan, Sandhya. 2014. Making sense of silence: finiteness and the (OC) PRO vs. pro distinction. *Natural Language & Linguistic Theory* 32(1). 59–85.
- Sundaresan, Sandhya. 2015. The finiteness-pro-drop generalization. CamCoS 4 (Cambridge Comparative Syntax), the University of Cambridge, 7–9 May 2015.
- Szabolcsi, Anna. 2009. Overt nominative subjects in infinitival complements in Hungarian. *Approaches to Hungarian: Volume 11: Papers from the 2007 New York Conference*. Amsterdam: John Benjamins.
- Tallerman, Maggie. 1998. The uniform case-licensing of subjects in Welsh. *The Linguistic Review* 15, 69–133.
- Tang, Sze-Wing. 2015. A generalized syntactic schema for utterance particles in Chinese. *Lingua Sinica* 1(1). 1–23.
- Tang, Ting-chi C. 1979. Studies in Chinese Syntax. Taipei: Student Books.
- Tang, Ting-Chi C. 2000. Finite and nonfinite clauses in Chinese. *Language and Linguistics* 1(1). 191–214.
- Thrainsson, Hoskuldur and Sten Vikner. 1992. Modals and Double Modals in Scandinavian Languages. Ms.
- Todorović, Neda and Susi Wurmbrand. 2017. Finiteness across domains. To appear in Teodora Radeva-Bork and Peter Kosta (eds.), *Current developments in Slavic Linguistics—Twenty years after*. Peter Lang.
- Trask, Robert Lawrence. 1993. A Dictionary of Grammatical Terms in Linguistics. London: Routledge.
- Tsai, Wei-Tien Dylan. 1995. Visibility, complement selection and the case requirement of CP. *Journal of East Asian Linguistics* 4(4). 281–312.
- Tsai, Wei-Tien Dylan. 2008. Tense anchoring in Chinese. Lingua 118(5). 675–686.
- Tsao, Feng-fu. 1990. Sentence and clause structure in Chinese: A functional perspective. Taipei: Student Book Co.
- Tsao, Feng-fu. 1996. Hanyu de tisheng dongci [raising verbs in Chinese], *Zhongguo Yuwen* 252 (1996 (3)): 172–182.
- Wang, William S. Y. 1965. Two aspect markers in Mandarin. Language 41. 457-470.
- Wiltschko, Martina. 2014. *The universal structure of categories: Towards a formal typology*. Cambridge: Cambridge University Press.
- Wiltschko, Martina. 2017. Temporality across categories. Invited talk at the 11th International Workshop on Theoretical East Asian Linguistics (TEAL-11), Academia Sinica, Taipei, June 3-4, 2017.
- Wu, Xiu-Zhi Zoe. 2004. *Grammaticalization and language change in Chinese: A formal view*. London: Routledge.
- Wurmbrand, Susi. 2001. *Infinitives: Restructuring and clause structure*. Berlin: Mouton de Gruyter.
- Wurmbrand, Susi. 2014a. Tense and aspect in English infinitives. *Linguistic Inquiry* 45(3). 403–447.
- Wurmbrand, Susi. 2014b. Restructuring across the world. In Ludmila Veselovská and Markéta Janebová (eds.), *Complex Visibles Out There. Proceedings of the Olomouc Linguistics Colloquium*, 275–294. Olomouc: Palacký University.

- Yang, Xiaolu, and Cheng Yang. 2015. Control in Mandarin-speaking children's early naturalistic production. *Lingua* 163. 1–22.
- Zhang, Ning. 1997. Syntactic Dependencies in Mandarin Chinese. PhD. Dissertation, University of Toronto.
- Zhang, Niina Ning. 2003. On the Pre-Predicate Lai [come] and Qu [go] in Chinese. In Jie Xu, Donghong Ji, and Teng Lua Kim (eds.), *Chinese Syntax and Semantics*, 177–201. Singapore: Prentice Hall.
- Zhang, Niina Ning. 2008. Gapless relative clauses as clausal licensers of relational nouns, *Language and Linguistics* 9(4). 1005–1028.
- Zhang, Niina Ning. 2010. Coordination in Syntax. Cambridge: Cambridge University Press.
- Zhang, Niina Ning. 2016. Identifying Chinese dependent clauses in the forms of subjects. *Journal of East Asian Linguistics* 25(3). 275–311.
- Zhang, Yisheng. 2001. Xiandai Hanyu shijian fuci san lun [Three issues of temporal adverbs in Modern Chinese]. In *Yuyan wenti zai-renshi qingzhu Zhang Bin xiansheng cong-jiao 50 zhounian ji 80 huadan* [revisit some linguistic issues: festschrifts for Mr. Zhang Bin's 50 years of teaching and 80 years birthday]. Shanghai: Shanghai Jiaoyu Press.
- Zhu, Dexi. 1982. Yufa jiangyi [On grammar]. Beijing: Shangwu Press.

Abstract

In Mandarin Chinese, sentence-final aspect markers *ne*, *le*, and *laizhe* may occur in some types of embedded clauses, but not in other types, such as the complement of a control verb, a raising verb, *lai* 'come' and *qu* 'go', a non-epistemic modal, and the prepositional complementizer *dui* 'to'. These latter types of clauses systematically show properties of nonfinite clauses in other languages. They are intrinsically embedded, ban *pro*-drop, their clause boundaries may be invisible for binding, and they disallow a speaker-oriented adverb and an epistemic modal. The restrictions on the distribution of the particles indicate that they are finite markers, although the language has no tense or case marker. The paper argues that finite clauses show speaker-oriented properties whereas nonfinite ones do not; instead, nonfinite clauses exhibit higher-clause-oriented properties. Identifying the role of speaker in finiteness distinction reveals the capacity of finite clauses, whether or not the capacity is marked overtly.

Keywords: finite, nonfinite, sentence-final particle, complementizer, speaker, Chinese