

***Shi...de* focus clefts in Mandarin Chinese¹**

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Abstract

The *shi...de* construction in Mandarin Chinese is a cover term for at least four distinct constructions. We focus on the remarkable internal properties of the *shi...de* pattern proper, where both *shi* and *de* are present. We concur with a long tradition of scholarship identifying *shi...de* as a cleft construction, but we show it to have very different properties from *it*- or pseudo-clefts in languages like English. The crucial distinguishing property of *shi...de* clefts is that they involve no A' movement. This is linked to the fact that the presupposition in the *shi...de* focus cleft involves a projection smaller than CP. It thus lacks a landing site for A' movement and fails to host material such as negation, normally compatible with full CP clefts in languages such as English. The Mandarin pattern shows that the basic semantic property of clefts, bipartitioning into focus and presupposition, is logically independent from A' movement.

1. Introduction

The *shi...de* pattern in Chinese has been the object of a number of syntactic and semantic studies since Paris (1979), Teng (1979) and Tang (1983) (cf. Huang 1982, 1988; Chiu 1993; Simpson & Wu 2002; Cheng (this volume) among others). Much of the confusion in the descriptive and theoretical literature on *shi...de* results from the fact that the label serves as a cover term for what we show are at least four distinct constructions. Our purpose in this article is, first, to clarify the distinctions between these constructions, and second, to focus on the remarkable internal properties of the *shi...de* pattern proper, where both *shi* and *de* are present.

Descriptively, the *shi...de* pattern is marked by the presence of two elements, the copula *shi* and, to its right, following a lexical verb and other clausal elements, the functional element *de* (variously analyzed as nominalizer by Paris (1979), as a D° or T° head by Simpson & Wu (2002), as a sentence-final particle by Tang (1983), and as on a par with the *de* in relative clauses by Cheng (this volume). What we call the *shi...de pattern proper* includes both of these elements. We concur with previous scholars in analyzing this pattern as a cleft construction, but one with very different properties from *it*- or pseudo-clefts in languages like English.

¹ The origin of the present article dates back to John Whitman's stay at the *Centre de recherches linguistiques sur l'Asie Orientale* (CRLAO), Paris, as a research fellow invited by the *Centre National de la Recherche Scientifique* (CNRS) during winter 2000/2001. Since then it has gone through numerous revisions. It could have never been achieved without the painstaking efforts of our consultants, in particular Lu Peng, Yuan Jiahong, and Zhou Yuping. For comments and feedback, we would like to thank the audience of the conferences in Irvine, Rome, Leiden, and Budapest where this work was presented as well as Jim Huang, Audrey Li, Li Ming, and Lin Jo-wang. Last, but not least, we are indebted to two anonymous TLR reviewers, and especially to Huba Bartos for his perseverance and patience as editor of this special issue.

Three additional patterns also involving copular *shi* are easily confused with *shi...de* proper, perhaps because two also involve focus-type prominence, while a third involves both *shi* and *de*, but without focus. The first of these patterns includes *shi* in a position after the subject, but no *de*. We label this the *medial bare shi* pattern (Section 2). We show that this pattern involves association with focus rather than a cleft focus interpretation. The second pattern contains both *shi* and *de* but no focused element after *shi*; we call this the *propositional assertion* pattern (Section 3). The third pattern places *shi* in clause initial position without *de*; we call this the *initial bare shi* pattern (Section 4). Depending on the locus of intonational prominence, this either involves association of the subject with focus or serves to assert the entire proposition; in the latter case it nevertheless shows semantic and syntactic differences with the propositional assertion pattern. Section 5, finally, focuses on the *shi...de* pattern proper, and describes the structural constraints on this focus cleft pattern.

2. Bare *shi* vs. *shi...de* proper: association with focus vs. cleft

Many studies do not distinguish between *shi ... de* and bare *shi* and propose the same analysis for both (see Teng 1979; Huang 1982, 1988; Chiu 1993 among others). We show in this section that these are two distinct constructions with completely different properties.

2.1. Sentence-medial bare *shi*: an association with focus pattern

In the *shi...de* proper pattern, the focus is positionally determined (also see Section 5): only the constituent immediately following *shi* can be focused (cf. (1)). In the medial bare *shi* construction, by contrast (cf. (2)), the position of focus is flexible: any constituent to the right of *shi* can be focused by assigning it intonational prominence (indicated by underlining):

- (1) a. *Ta shi zai Beijing xue yuyanxue de, bu shi zai Shanghai xue de.*²
 3SG be at Beijing learn linguistics DE NEG be at Shanghai learn DE
 'It's in Beijing that he studied linguistics, not in Shanghai.'

- b. *Ta shi zai Beijing xue yuyanxue de,*
 3SG be at Beijing learn linguistics DE

% *bu shi zai Beijing xue fawen de.*
 NEG be at Beijing learn French DE

% *bu shi zai Beijing jiao yuyanxue de.*³
 NEG be at Beijing teach linguistics DE

(%It's in Beijing that he studied linguistics, and not French.)
 (%It's in Beijing that he studied, not taught linguistics.)

- (2) a. *Ta shi zai Beijing xue yuyanxue Ø,*
 3SG be at Beijing learn linguistics
- bu shi zai Shanghai xue (yuyanxue).*
 NEG be at Shanghai learn linguistics

² The following abbreviations are used in glossing examples: CL classifier; DUR durative aspect; EXP experiential aspect; NEG negation; PART sentence-final particle; PERF perfective aspect; PL plural (e.g. 3PL = 3rd person plural); SG singular; SUB subordinator.

³ The possible focus positions are teased out by testing the acceptability of different ways to continue the sentence, where '%' marks the infelicity of an otherwise well-formed sentence to serve as such a continuation.

‘He studies linguistics in Beijing, not in Shanghai.’

- b. *Ta shi zai Beijing xue yuyanxue* Ø
3SG be at Beijing learn linguistics

bu shi zai Beijing xue fawen.
NEG be at Beijing teach French
‘He studies linguistics, not French, in Beijing.’

- c. *Ta shi zai Beijing xue yuyanxue* Ø, *bu shi zai Beijing jiao yuyanxue.*
3SG be at Beijing learn linguistics NEG be at Beijing teach linguistics
‘He studies, not teaches, linguistics in Beijing.’

- d. *Ta shi zai Beijing xue yuyanxue* Ø, *bu shi zai Shanghai jiao fawen.*⁴
3SG be at Beijing learn linguistics NEG be at Shanghai teach French
‘He studies linguistics in Beijing, he doesn’t teach French in Shanghai.’

Questions with bare *shi* further illustrate the positional flexibility of focus. Any element to the right of *shi* may be marked as the focus of the question by stress. If *shi* itself is stressed, then the entire sentence is interpreted as being in the scope of *shi* (cf. Ding Li 1999 : 418).⁵

- (3) a. *Juzhang shi bu tongyi ni qu ma ?*
office.head be NEG agree 2SG go PART
‘DOES the office head not agree with your going ?’

- b. *Juzhang shi bu tongyi ni qu ma ?*
office.head be NEG agree 2SG go PART
‘The office head doesn’t agree with YOUR going ?’

(2) - (3) show that bare *shi* is an *association with focus* pattern (Jackendoff 1972, Rooth 1985). Any item to the right of the focus operator⁶ may be associated with focus by assigning it intonational prominence. Material to the left of *shi*, the focus operator in this pattern, may not receive association with focus, even if intonationally prominent:

- (4) # *Juzhang shi bu tongyi ni qu ma ?*
office.head be NEG agree 2SG go PART
(intended: ‘Is it the office head who does not agree with your going?’)

⁴ When the entire VP is associated with focus as in (2d), there is no possibility to mark this by intonational prominence, the entire VP being too big a domain.

⁵ Those native speakers who do not accept (3a) nevertheless accept the corresponding A-bu-A question with intonational prominence on *shi* giving rise to the same interpretation as (3a) where the entire sentence is in the scope of *shi bu shi* (also see (29) below). Thanks to Lin Jo-wang (p.c.) for pointing this out to us.

(i) *Juzhang shi bu shi bu tongyi ni qu? Dui , ta bu tongyi.*
office.head be NEG be NEG agree 2SG go correct 3SG NEG agree

‘DOES the office head not agree with your going ? Correct, he doesn’t agree.’

⁶ The term is that of Rooth (1985: 88) and is explicitly crosscategorical; we make no claim about the syntactic operator status of *shi* or English *do* in examples like (5). Huang (1982:4.4) in his chapter on cleft sentences likewise analyses the copula *shi* as a focus operator. Note, however, that he examines only *bare shi* sentences and explicitly excludes *shi...de* proper from his investigation (Huang 1982, ch. 4.4, footnote 22).

(4) is unfelicitous; in a medial bare *shi* construction it is impossible to focalize the subject even when it is assigned intonational prominence.⁷

This parallels precisely the behavior of association of focus with uninverted ('emphatic') *do* in English yes/no questions:

- (5) a. *The director did agree with your going?* (= (3a))
 b. *The director did agree with your going?* (= (3b))
 c. ??*The director did agree with your going?* (= (4))

Shi in the medial bare *shi* construction and *do* in (5) display behavior representative of focus operators in association with focus constructions: the focus operator may be associated with any constituent in its c-command domain that is marked by intonational prominence. In contrast, *shi...de* proper allows none of the positional flexibility found in association with focus. Thus the *shi...de* counterpart of (3b) is unacceptable:

- (6) **Juzhang shi bu tongyi ni qu de ma ?*
 office.head be NEG agree 2SG go DE PART

2.2. Scope of negation

In the *shi...de* proper pattern in (7-8), the presupposition, defined as the material between the focused element directly to the right of *shi* and *de* (see section 5.1), is always outside the scope of negation (cf. Paris 1979: 100). In contrast, with bare *shi* (9), negation can bear on the item directly to the right of *shi*, the remainder of the VP to its right or both, depending which element is given intonational prominence (again indicated by underlining):

- (7) a. *Ta bu shi zuotian qu Beijing de, shi qiantian qu de.*
 3SG NEG be yesterday go Beijing DE be day.before.yesterday go DE
 'It's not yesterday that he went to Beijing, it's the day before yesterday.'
 b. *Ta bu shi zuotian qu Beijing de, % shi zuotian qu de Shanghai.*
 3SG NEG be yesterday go Beijing DE be yesterday go DE Shanghai
 ('It's not yesterday that he went to Beijing,
 % 'it's yesterday that he went to Shanghai.')
- (8) a. *Ta bu shi zai Beijing xue yuyanxue de, shi zai Shanghai xue de.*
 3SG NEG be at Beijing learn linguistics DE be at Shanghai learn DE
 'It's not in Beijing that he studied linguistics, it's in Shanghai.'
 b. *Ta bu shi zai Beijing xue yuyanxue de,*
 3SG NEG be at Beijing learn linguistics DE
 'It's not in Beijing that he studied linguistics,
 % *shi zai Beijing xue fawen de. / shi zai Beijing jiao yuyanxue de.*

⁷ The subject can be associated with focus only in the the sentence-initial bare *shi* pattern (cf. section 4.2 below):

- (i) *Shi juzhang bu tongyi ni qu ma ?*
 be office.head NEG agree 2SG go PART
 'Is it the office head who does not agree with your going?'

As indicated by the underlining, once again the constituent associated with focus, *juzhang* 'office head', must be intonationally prominent.

be at Beijing learn French DE / be at Beijing teach linguistics DE
(% ‘... it’s in Beijing that he studied French. /... it’s in Beijing that he taught linguistics.’)

- (9) a. *Ta bu shi zai Beijing xue yuyanxue Ø, shi zai Shanghai xue (yuyanxue).*
3SG NEG be at Beijing learn linguistics be at Shanghai learn linguistics
‘He did not study linguistics in Beijing, (but) in Shanghai.’
- b. *Ta bu shi zai Beijing xue yuyanxue Ø, shi zai Beijing xue fawen.*
3SG NEG be at Beijing learn linguistics be at Beijing learn French
‘He did not study linguistics in Beijing, he studied French in Beijing.’
- c. *Ta bu shi zai Beijing xue yuyanxue Ø, shi zai Beijing jiao yuyanxue.*
3SG NEG be at Beijing learn linguistics be at Beijing teach linguistics
‘He did not study linguistics in Beijing, he taught linguistics in Beijing.’
- d. *Ta bu shi zai Beijing xue yuyanxue Ø, shi zai Shanghai jiao fawen.*
3SG NEG be at Beijing learn linguistics be at Shanghai teach French
‘He did not study linguistics in Beijing, he taught French in Shanghai.’

Exclusion of the presupposition from the scope of negation is another property of clefts (cf. (7-8)). Note the infelicity of the English *it*-cleft in the translation of (8b) in the same discourse context. This is thus another property of *shi...de* proper that marks it as a cleft construction.

In (9), in contrast, association with focus under negation is variable and depends on which constituent receives intonational prominence. Intonational prominence is obligatory on chosen constituents in both conjuncts. Association with focus occurs with ‘in Beijing’ in (9a), ‘linguistics’ in (9b), the verb ‘study’ in (9c), and the entire VP including the adjunct ‘study linguistics in Beijing’. This is reminiscent of the notion of focus projection developed by Selkirk (1984): under this approach, intonational prominence on a daughter of VP may lead to association of focus with that constituent, or the entire VP. Again, this is a property of an association of focus pattern, not a cleft pattern.

2.3. Exclusiveness condition

The *shi...de* proper pattern is subject to the *Exclusiveness condition* (cf. Szabolcsi 1981, É. Kiss 1998, Hedberg 2000). Under this condition, asserting that the property denoted by the presupposition also holds of an entity distinct from the focus of the cleft leads to a contradiction:

- (10) *It is Mary that I gave the book to. #And it is John that I gave the book to also.*

Association with focus is not subject to the exclusiveness condition, unless exclusiveness is part of the meaning of the focus operator (as in the case of *only*). Thus an association with focus counterpart of (10) with *even* is perfectly well formed:

- (11) I even gave the book to MARY. And I even gave the book to JOHN.

(12a) shows that *shi...de* proper is subject to the exclusiveness condition, while (12b) shows that bare *shi* is not:⁸

⁸ *Shi...de* proper focusing the subject likewise must obey the exclusiveness condition (cf. Section 5 below):

(i) *Shi Lisi qu Shanghai de, % (dan) ye shi Zhangsan*
be Lisi go Shanghai DE but also be Zhangsan

- (12) a. *Ta shi zai Beijing xue zhongwen de, % (dan) ye shi zai Shanghai xue de.*
 3SG be at Beijing study Chinese DE but also be at Shanghai study DE
 (% ‘It’s in Beijing that he studied Chinese, but also in Shanghai.’)
- b. *Ta shi zai Beijing xue -guo zhongwen Ø, dan ye zai Shanghai xue -guo.*
 3SG be at Beijing study-EXP Chinese but also at Shanghai study-EXP
 ‘She studied Chinese in Beijing, but she also studied Chinese in Shanghai.’

Once again, *shi...de* patterns with cleft constructions, while bare *shi* behaves like association with focus.

To summarize, we have established a distinction between the (medial) *shi...de* pattern proper, a focus cleft construction, and the medial bare *shi* pattern as a case of association with focus. The former shows a bipartitioning consisting of the focused element and the presupposition, which is always outside the scope of negation; it is subject to the exclusiveness condition, and focus is positionally determined. In the latter, by contrast, any constituent to the right of *shi* that is marked by intonational prominence may be associated with focus, and the exclusiveness condition does not hold.

3. *Kending yuqi* ‘propositional assertion’

The pattern to be discussed in this section is sometimes associated with the label *kending yuqi* ‘affirmative mood’ (e.g. Zheng et al. 1992); we label this pattern *propositional assertion*. In this pattern both *shi* and *de* are present, in the configuration ‘NP *shi* V O *de*’, but no element is focused. It therefore must be distinguished from both *shi...de* proper and the bare *shi* pattern. The propositional assertion pattern conveys the speaker’s certainty that the proposition holds in a given situation. This is subtly different from a simple declarative assertion; the contrast can be rendered with the pair of English sentences in (13).

- (13) a. *The door was left unlocked.*
- b. *It is the case that the door was left unlocked.*

The simple declarative (13a) asserts that the door was unlocked, perhaps as a piece of information new to the hearer. The propositional assertion (13b) asserts that it is the case that the door was left unlocked; the hearer may already know this, but (13b) conveys the implicature that the truth of this proposition is relevant to the discourse context (for example, in choosing exit strategies, or explaining how the cat got out). This is what Chao (1968: 296) is getting at when he introduces the propositional assertion pattern, which he calls “situational *de*”.⁹ Chao’s example is:

- (14) *Ta shi gen ni kai wanxiao de.*
 3SG be with 2SG open joke DE
 ‘(It is the case that) he was joking with you.’
 ‘He was just joking with you that-was-what-he-was-doing.’ (Chao’s (1968: 296) translation)

‘It was Lisi who went to Shanghai (% but also Zhangsan).’

⁹ Our characterization of the propositional assertion pattern is very close to Chao’s (1968: 296), although he couches it in terms of the meaning of *de* rather than the function of the pattern as a whole: “Situational *de*. Sometimes the *de* refers to the whole situation with the meaning of ‘such is the case’, ‘this is the kind of situation’.”

In the context for (14), the hearer may already know that the subject of the sentence was joking; the speaker's assertion that this is the case serves to alert or remind the hearer of the relevance of this proposition (so, for example, the hearer should not get angry). Here are additional examples:

- (15) *Qishi, ta shi mingbai de, bu yuanyi shuo jiu shi le.*
 in.fact 3SG be understand DE NEG wish speak then be PART
 'In fact, (it is the case that) he understands very well,
 he just doesn't want to talk.'

- (16) *Wo shi yuanyi bangzhu tamen de.*
 1SG be wish help 3PL DE
 '(It is the case that) I do want to help them.'

- (17) *Zhei-ge dongxi, ta shi yinggai ban -de -dong de.*
 this-CL thing 3SG be must remove-able-move DE
 'This thing, he should be able to move it.'

- (18) *Wo shi chi-guo sherou de.*
 1SG be eat-EXP snake.meat DE
 '(It is the case) that I have eaten snake meat.'

Examples (15-18) show the crucial structural distinction between propositional assertion and *shi...de* proper: in the former, a bare VP directly follows *shi*, and no element is singled out for focus. This fact alone shows that propositional assertion is neither a cleft nor an association with focus construction. Naturally, the VP in the propositional assertion pattern may be a complex one containing an item such as an adjunct; Chao's example (14) is such an instance, and thus allows an additional cleft focus interpretation: 'It is with you that he was joking'. In such a case context distinguishes the propositional assertion and cleft (*shi...de* proper) interpretations. Furthermore, as we show in section 5, *shi...de* proper and propositional assertion have distinct structural properties: these insure that the following examples are interpretable only as propositional assertion:

- (19) *Ta shi yiding hui dui ni hao yi-beizi de.*
 3SG be certainly will towards 2SG good 1-generation DE
 '(It is the case that) he will certainly be good to you for an entire lifetime.'
 (Li, Thompson and Zhang 1998: 94, (C))

- (20) *Wo shi conglai bu chou yan de.*
 1SG be ever NEG inhale smoke DE
 '(It is the case that) I have never smoked.'

Propositional assertion can also be distinguished from the bare *shi* pattern described in the preceding section. Bare *shi* is infelicitous in irrealis contexts such as counterfactuals and future-oriented conjectures, while propositional assertion is possible in such cases (also see Lu Peng 2003: 269):

- (21) *Ni yaobushi zheme hulihutu dehua,*
 2SG unless so confused PART

*fouze ni shi bu hui shang ta -de dang *(de).*

otherwise 2SG be NEG will go.up 3SG-SUB pawn DE

‘If you hadn’t been so utterly confused, (it would be the case that) you wouldn’t have been fooled by him.’

- (22) *Wo benlai shi yao mingtian hui zhongguo *(de),*
1SG originally be want tomorrow return China DE

keshi hangkonggongsi ba gong le.
but airline.company cease work PART

‘Originally (it was the case that) I wanted to go back to China tomorrow, but the airline is on strike.’

- (23) *Wo queshi bu xuyao chi yao, shao ye bu gao;*
1SG indeed NEG need eat medicine fever also NEG high

*shui yi-jiao, chu dian han , shao kending shi hui tui *(de).*
sleep 1-sleep produce a.bit sweat fever certainly be will decline DE

‘In fact, I don’t need to take any medicine, the fever is not very high; if I sleep a bit and sweat a bit, (it is the case that) it will certainly drop.’

(based on example (9) by Li, Thompson and Zhang 1998: 95)

- (24) *Wo shi dao si dou hui xiang-zhe ni *(de).*
1SG be until death all will think -DUR 2SG DE

‘(It is the case that) I will think of you until I die.’

(based on example (10) by Li, Thompson and Zhang 1998: 95)

The propositional assertion pattern - used to assert that a proposition is true and implicate that it is relevant to the current discourse situation - is widely found in East and Southeast Asia, as first noted by Matisoff (1972). The basic pattern involves a subordinate or ‘nominalized’ clause predicated of the copula, in the general form ‘It is that S’. Exemplars include the Japanese *no da* construction (Kuno 1973) and the Burmese *S deh* pattern (Okell 1970) (cf. Section 6.3 below). In contrast to normal assertions, which merely assert the proposition denoted by the clause, the propositional assertion pattern asserts that the proposition is the case, or is presupposed, and implicates that its truth is relevant to the discourse context.

4. Sentence-initial bare *shi*: ‘*Shi NP VP Ø*’

Sentence-initial bare *shi* differs from medial bare *shi* in that there are only two choices for interpretation: the entire proposition may be strongly asserted, or the subject may be focused. This clearly contrasts with medial bare *shi* where any element contained in the VP to the right of *shi* can be associated with focus, as we saw in section 2.¹⁰

4.1. Sentence-initial bare *shi* bearing on the entire sentence

¹⁰ The absence of any other (third) interpretation invalidates Li & Thompson’s (1981: 153) claim that with sentence-initial bare *shi* any constituent to the right of *shi* can be associated with focus when assigned intonational prominence.

When the subject is not assigned intonational prominence under sentence-initial bare *shi*; the truth of the entire sentence is strongly asserted, with a meaning comparable to ‘it is (really) that S’ or ‘it is because S’.

- (25) *Shi xia yu le, bu pian ni.* (Lü 2000: 500)
 be fall rain PART NEG trick 2SG
 ‘It really is that it’s raining, I kid you not.’

This assertion of veridicality may be negated (‘it is not that S’) or converted into a question (‘is it that/because S?’).

- (26) *Bu shi [yifu tai shou], shi [ni tai pang le].* (Lü 2000 : 500)
 NEG be clothing too slim be 2SG too fat PART
 ‘It’s not that the clothing is too small, it’s just that you’re too big.’

- (27) *Bu shi [wo jiang-cuo-le], shi [ta ji -cuo le].*
 NEG be 1SG say -err -PERF be 3SG remember-err- PERF
 ‘It’s not that I said the wrong thing, it’s that he didn’t remember it correctly.’

- (28) *Lao Zhang weishenme mei you lai ? Shi ta -de chezi huai -le ma ?*
 Lao Zhang why NEG have come be 3SG-SUB car break-PERF PART
 ‘Why hasn’t Lao Zhang come? Is it because his car broke down?’
 (Ding Li 1999: 415)

In A-*bu*-A questions formed on the sentence-initial bare *shi* pattern such as (29) and bearing on the truth of the entire proposition, it is preferable to assign intonational prominence to *shi* (cf. Ding Li 1999: 418):

- (29) *Shi bu shi juzhang bu tongyi ni qu ?* (Ding Li 1999: 415)
 be NEG be office.head NEG agree 2SG go
 ‘Is it that the office head doesn’t agree with your going?’

There are a number of structural differences between the propositional assertion pattern ‘NP *shi* V O *de*’ discussed in the previous section and the above usage of sentence-initial bare *shi*.

First, *shi* in the former pattern cannot be negated (except when the VP to the right of *shi* is also negated), in contrast to (26-27), it cannot be questioned with A-*bu*-A, in contrast to (29)) nor with *ma*, in contrast to (28):¹¹

- (30) a. **Qishi, ta bu shi mingbai de.* (cf. (15) above)
 in.fact 3SG NEG be understand DE
 b. **Ta shi bu shi mingbai de?*
 3SG be NEG be understand DE

¹¹ *Shi* in the propositional assertion pattern can only be negated when the VP to the right of *shi* is also negated, thus resulting in: ‘it is not the case that not P’:

(i) *Bie zhaoji, zhei-ge wenti bu shi bu neng jie jue de.*
 NEG worry this -CL problem NEG be NEG can solve DE
 ‘Don’t worry, this problem CAN be solved.’

- c. * *Ta shi dao si dou hui xiang-zhe ni de ma?* (cf. (24) above)
 3SG be until death all will think -DUR 2SG DE PART
 ('Is it the case that he will think of you until he dies?')

Second, sentence initial bare *shi* may occur with the sentence-initial pronouns *na* 'that' or *zhe* 'this':

- (31) *Zhe shi wo bu hao, ba ta guan -cheng -le zheyang.*
 this be 1SG NEG good BA 3SG indulge-become-PERF so
 'It's that I'm no good, (so) I have spoilt him to such an extent.'
 (example slightly modified from Lü 2000: 500)

This is impossible with propositional assertion:

- (32) a. * *Zhe ta shi mingbai de.*
 this 3SG be understand DE
 b. * *Zhe shi ta mingbai de.*
 this be 3SG understand DE

Finally, we noted in Section 2 that propositional assertion with *shi...de* is possible in irrealis or counterfactual contexts, while sentence medial bare *shi* is not. Sentence initial bare *shi* is also ruled out in such contexts.

- (33) * *Shi wo benlai yao mingtian hui zhongguo,* (cf. (22) above)
 be 1SG originally want tomorrow return China
keshi hangkonggongsi ba gong le.
 but airline.company cease work PART

(Intended meaning: 'Originally (it was the case that) I wanted to go back to China tomorrow, but the airline was on strike.')

To summarize, unlike *medial* bare *shi*, the sentence-initial bare *shi* under discussion in this section does not assign focus to a specific constituent to its right; instead it asserts the entire clause to its right. It also differs from propositional assertion with *shi...de* in that it may be questioned or negated.

4.2. Sentence-initial bare *shi* with a subject focus cleft reading

The bare *shi* construction with sentence-initial *shi* can be interpreted as a subject focus-type cleft provided that the subject receives phonological stress. Two pieces of evidence show that this is a focus cleft, rather than an association with focus pattern.

First, it shows the same exclusiveness effects as the corresponding *shi...de* cleft construction (cf. Section 2.3). Thus Tsai (2004) shows that (34a) does not entail (34b).¹²

- (34) a. *Shi Akiu he Xiao-D he -le hongjiu.* (Tsai Wei-Tian 2004: 99 - 100)
 be Akiu and Xiao-D drink-PERF red.wine
 'It's Akiu and Xiao-D who drank red wine.'

¹² Xu Liejiong (2002) also observes that the exclusiveness condition applies to sentence-initial bare *shi*. Note that both Xu (2002) and Tsai (2004) check the exclusiveness condition for sentence-initial bare *shi* only and do not examine bare *shi* in *medial* position nor the *shi...de* construction proper.

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- b. *Shi Akiu he -le hongjiu.*
be Akiu drink-PERF red.wine
'It's Akiu who drank red wine.'

Similarly, parallel to (12a) in Section 2.3, (35) expresses a contradiction.

- (35) % *Shi Akiu he -le hongjiu, dan ye shi Zhangsan.*
be Akiu drink-PERF red.wine but also be Zhangsan
% 'It's Akiu who drank red wine, but also Zhangsan.'

Second, sentence-initial bare *shi* disallows focus on any other other constituent besides the subject within the clause to the right of *shi*, even if intonational prominence is assigned.¹³

- (36) **Shi Akiu xue yuyanxue, bu shi (Akiu) xue shuxue.*
be Akiu study linguistics NEG be Akiu study mathematics
(Intended meaning: 'Akiu studies linguistics, not mathematics.')

Thus in two respects sentence-initial bare *shi* with subject focus qualifies as a cleft construction: it obeys the exclusiveness condition - as we have seen, a property of clefts, not of association with focus constructions; and it requires focus to be assigned to a designated position; the subject immediately following *shi*. Despite the absence of *de*, then, this pattern is a functional counterpart of *shi...de* proper, a cleft construction. The two patterns are structurally distinct, however: in the next section, we enumerate a number of structural differences between sentence initial bare *shi* with subject focus and the subject focus subtype of the *shi...de* pattern proper.

5. The *shi...de* construction proper: subject and adjunct focus cleft

As we mentioned in the discussion of the propositional assertion pattern in Section 3, when both *shi* and *de* are present and an adjunct constituent immediately follows *shi*, two interpretations are possible: propositional assertion or adjunct focus cleft. Thus, as we noted in Section 3, Chao's example (14), repeated as (37), can either be interpreted as propositional assertion or as an adjunct cleft:

- (37) *Ta shi gen ni kai wanxiao de.* (= (14))
3SG be with 2SG open joke DE
(i) '(It is the case that) he was joking with you.'
(ii) 'It was with you that he was joking.'

"Northern" speakers distinguish these two interpretations syntactically: the cleft focus interpretation requires verb-adjacent *de*, giving the order '*shi* V *de* O', while the propositional assertion interpretation requires clause final placement of *de*, '*shi* V O *de*'.¹⁴ By contrast,

¹³ This includes focus on constituents in topic position, even though they are directly to the right of *shi*:

(i) **Shi zai Beijing ta xue zhongwen, bu shi zai Shanghai.*
be at Beijing 3SG study Chinese NEG be at Shanghai
('It's in Beijing that he studies Chinese, not in Shanghai.')

¹⁴ For the purposes of this paper, "Northern" refers primarily to speakers of Beijing Mandarin, "Southern" to speakers of Taiwan Mandarin and perhaps other "Southern" varieties. We are not in a position to specify the precise geographic distribution of the contrasting placement of *de* in these varieties, and we emphasize that individual speakers may be influenced by the norms of both. We largely owe the "discovery" of the correlation

“Southern” speakers always place *de* in sentence-final position, regardless of interpretation. Thus, (37) illustrates the situation for Southern speakers, while Northern speakers have to use two different structures for propositional assertion (38a) and focus cleft (38b):

- (38) a. *Ta shi gen ni kai wanxiao de.*
 3SG be with 2SG open joke DE
 ‘(It is the case that) he was joking with you.’
- b. *Ta shi gen ni kai de wanxiao.*
 3SG be with 2SG open DE joke
 ‘It was with you that he was joking.’

The same “Northern” and “Southern” distinction carries over to cases where the focused constituent immediately following *shi* is the subject (cf. (40)). The contrast is summarized in (39).

(39)	<u>Northern speakers</u>	<u>Southern speakers</u>
	V <i>de</i> O	V O <i>de</i>
a. Adjunct focus	possible	possible
b. Subject focus	possible	possible
c. prop. assertion	impossible	possible

We see, then, that *shi...de* proper is a focus cleft pattern that can be used to focus either the subject or an adjunct immediately following *shi*.¹⁵ For “Southern” speakers *de* follows the entire clause to the right of *shi* in both the focus cleft construction and in the propositional assertion pattern. For “Northern” speakers the two constructions can be distinguished if an object is present. The patterns in question are shown in (40-42):

- (40) *Shi ta jiejie kai de men.* (Subject focus)
 be 3SG elder.sister open DE door
 ‘It was her elder sister who opened the door.’

existing for “Northern” speakers between positioning of *de* and cleft vs propositional assertion interpretation to Lu Peng (p.c.).

¹⁵ For reasons of space, we will not discuss object focus cleft here, as illustrated in (i) (cf Zhu Dexi 1961: 9):

- (i) *Tamen shi chang de shenme ge (*de)?*
 3SG be sing DE what song DE
 ‘What was the song they sang?’

To the best of our knowledge, this pattern has escaped attention in studies of the *shi...de* construction subsequent to Zhu (1961) and is not mentioned by any of the studies on *shi...de* cited in Section 5.2. A quick examination shows that the pattern in (i) indeed qualifies as a focus cleft on a par with adjunct and subject focus cleft.

Negation cannot affect the presupposition:

- (ii) *Wo bu shi qu de Dalian, shi qu de Shanghai / % shi zhu de Dalian.*
 1SG NEG be go DE Dalian be go DE Shanghai / be live DE Dalian
 ‘It’s not to Dalian I went, but to Shanghai / % but it’s in Dalian that I lived.’

Like subject and focus clefts, object focus cleft is subject to the exclusiveness condition:

- (iii) *Wo shi xie de shi, bu shi xie de sanwen.*
 1SG be write DE poem NEG be write DE prose
 ‘It is poetry that I wrote, not prose.’

- (iv) *%Wo shi xie de shi, ye shi xie de sanwen.*
 1SG be write DE poem also be write DE prose
 (% ‘It is poetry that I wrote, and also prose.’)

Note that object focus cleft requires verb-adjacent *de* for both Northern and Southern speakers (cf. (i)).

- (41) *Lu Xun shi shenme shihou xie de A Q ?* (Adjunct focus)
 Lu Xun be what time write DE A Q
 ‘When was it that Lu Xun wrote A Q?’
- (42) *Wo shi chi-guo (*de) sherou de.* (Propositional assertion)
 1SG be eat-EXP DE snake.meat DE
 ‘I have eaten snake meat.’

Our discussion in the remainder of this article is based on “Northern” speakers whose grammar includes this distinction between adjunct and subject focus clefts vs. propositional assertion in terms of the position of *de*, thus giving us a clearer picture of the differences between two constructions which so far have been treated as the same phenomenon due to their superficial similarity.

5.1. Descriptive preliminaries

In this section we review properties of the cleft constructions which have either not been made explicit in the previous literature or - though well-known - have not been integrated into previous analyses of focus clefts in Mandarin Chinese. For descriptive purposes, we designate the components of this construction as follows:

- (43) *Ta shi [gen ni] [kai de wanxiao].* (=38b)
 3SG be with 2SG open DE joke
 {focus} {presupposition}

5.1.1. Material above vP impossible inside presupposition

The presupposition of a *shi...de* cleft proper may not contain negation, modal auxiliaries such as *neng* ‘can’ or *yinggai* ‘must’, tense/aspect markers such as perfective *le*, experiential *-guo* or durative *-zhe* or the quantificational adverb *dou*.

Negation

- (44) a. * *Shi didi bu/mei xi de panzi.* (Subject focus)
 be younger.brother NEG wash DE plate
 (‘It was younger brother who didn’t do the dishes.’)
- b. * *Ta shi shang-ge xingqi bu/mei qu de xuexiao.* (Adjunct focus)
 3SG be last -CL week NEG go DE school
 (‘It was last week that he didn’t go to school.’)

Modal Auxiliaries:

- (45) a. * *Shi Lisi neng/yinggai kai de men.* (Subject focus)
 be Lisi can / must open DE door
 (‘It was Lisi who could/had to open the door.’)
- b. * *Ta shi shang-ge xingqi neng / yinggai canjia de huiyi.* (Adjunct focus)
 3SG be last -CL week can / must attend DE meeting
 (‘It was last week that he could/had to attend the meeting.’)

Tense/aspect markers¹⁶

- (46) a. *Shi ta dapo (*-le) de beizi.* (Subject focus)
 be 3SG smash -PERF DE cup
 ‘It was him who smashed the cup.’
- b. *Shi ta qu(*-guo) de zhongguo.* (Subject focus)
 be 3SG go -EXP DE China
 ‘It was him who went to China.’
- c. *Wo shi zuotian wanshang cai tingdao (*-le) de xiaoxi.*
 1SG be yesterday evening only hear -PERF DE news
 ‘It was only yesterday evening that I heard the news.’ (Adjunct focus)

Quantificational adverb *dou*

- (47) a. **Shi tamen dou chao de jia.* (Subject focus)
 be 3PL DOU quarrel DE fight
 (‘It was them who all quarreled.’)
- b. **Wo shi gen suoyoude linju dou chao de jia.* (Adjunct focus)
 1SG be with all neighbour DOU quarrel DE fight
 (‘It was with all neighbours that I quarreled.’)

What negation, modal auxiliaries, tense/aspect markers and *dou* ‘all’ have in common is that they are generated above vP, the projection containing the base position of the subject. We may thus conclude that the presupposition of *shi...de* clefts (with verb-adjacent *de*) may not contain material above vP. In contrast, the propositional assertion pattern, despite the fact that it includes both *shi* and *de*, may include such material to the right of *shi*. Among examples discussed in Section 3, (20) and (21) are examples of negative *bu*, (17) of modal *yinggai* ‘must’, (24) of *dou* ‘all’ and aspectual suffix *-zhe*, and (18) of aspectual *-guo*.¹⁷

5.1.2. Only subjects and adjuncts can be positionally focused

¹⁶ Simpson & Wu (2002: 194, footnote 15) invoke a general (phonotactic) principle disallowing two contiguous clitic-like elements such as *le* and *de* in order to rule out aspectual markers in the *shi...de* pattern proper. This can, however, not be the right explanation, given the acceptability of the sequence *le de* in relative clauses (examples due to Fu Jingqi, p.c.):

- (i) [_{DP} [*hong -le*] *de pingguo*] *cai haochi.*
 redden-PERF SUB apple only delicious
 ‘Only apples which have reddened are delicious.’
- (ii) [_{DP} [*zuowan-le*] *de*] *keyi xian zou.*
 finish -PERF SUB can first leave
 ‘Those who have finished can leave first.’

The unacceptability of aspect suffixes must therefore have a structural reason i.e., it is due to the constrained size (vP) of the complement selected by *de* in the ‘V *de* O’ focus cleft pattern (cf. 5.3 below). This is corroborated by the fact that auxiliaries and negation are likewise excluded here.

¹⁷ As noted by an anonymous reviewer for the two examples of adjunct focus cleft, (45b) and (47b), these become acceptable not only for Southern speakers (as expected), but also for Northern speakers with sentence-final *de* instead of verb-adjacent *de*. For more discussion, cf. Section 5.3 below.

Only subjects and adjuncts can be focused by occupying the position immediately following *shi*.¹⁸ Although operations fronting objects and other constituents exist in Chinese, these operations may not select as a landing site the focus position to the immediate right of *shi*. This applies to object fronting within TP (cf. Paul 2002, 2005) and to topicalization (cf. Paris 1979, Teng 1979, Huang 1982, 1988):

Object fronting

- (48) a. *Women gugong qu-guo le.*
 1PL imperial.palace go-EXP PART
 ‘We have been to the imperial palace before.’
- b. **Women shi gugong qu de.*
 1PL be imperial.palace go DE
 (‘It was the imperial palace we went to.’)

Topicalization

- (49) a. *[Ni -de gou] wo zai gongyuanli zhaodao le.*
 2SG-SUB dog 1SG at park find PART
 ‘Your dog, I found it in the park.’
- b. **Shi [ni -de gou] wo zai gongyuanli zhaodao de.*
 be 2SG-SUB dog 1SG at park find DE
 (‘It was your dog that I found in the park.’) (Teng 1979, (6))

This is in direct contrast with English *it*-clefts, which are derived by A-bar movement (Chomsky 1977), as indicated by the well-formedness of the English translations for (48b) and (49b).

5.1.3. Past tense reading only

It is a well-known fact that subject and adjunct focus clefts give rise to a past tense reading only (cf. Dragunov 1952: § 116; Paris 1979; Teng 1979 among others). Thus future oriented temporal adverbs are excluded in focus clefts (independently of whether they co-occur with future-oriented auxiliaries):

Future-oriented temporal adverbs

- (50) **Shi ta mingtian (hui) likai de Beijing.* (Subject focus)
 be 3SG tomorrow will leave DE Beijing
 (‘It’s him who will leave Beijing tomorrow.’)
- (51) **Ta shi mingtian (hui) likai de Beijing.* (Adjunct focus)
 3SG be tomorrow will leave DE Beijing
 (‘It’s tomorrow that he will leave Beijing.’)

5.1.4. Summary of descriptive generalizations

¹⁸ We exempt object focus cleft here (cf. note 15 above). Note however, that the mechanism of focus assignment must be different here, the object not being adjacent to *shi*.

The descriptive generalizations outlined above enable us to distinguish *shi...de* proper, the ‘V *de* O’ focus cleft construction containing both *shi* and *de*, from the propositional assertion pattern as well as from medial and initial *bare shi* patterns. As we saw in Sections 3 and 5.1.1, unlike the ‘V *de* O’ focus cleft, propositional assertion allows negation, modal auxiliaries, and tense/aspect auxiliaries. It also allows higher adverbs such as *dou* ‘all’ and future-oriented temporal adverbs and accordingly is not limited to past tense interpretation. Similarly, the subject focus cleft with sentence-initial *bare shi* distinguishes itself from the (corresponding) subject focus cleft with *shi...de* proper in that the former allows the material excluded from the latter, as shown by (52a-b) below:

- (52) a. *Shi women xuexiao de xuesheng mingtian bu ken canjia (*de) huiyi.*
 be 1PL school SUB student tomorrow NEG want attend DE meeting
 ‘It is the students of our school who don’t want to attend the meeting tomorrow.’
- (52) b. *Shi Lisi chi-guo (*de) sherou.*
 be Lisi eat-EXP DE snake.meat
 ‘It’s Lisi who has tried snake meat.’

5.2 Previous studies of the *shi...de* focus cleft construction

Generative studies of *shi...de* begin with Paris (1979). Paris (1979: 148) argues that *shi* is the main predicate in the underlying structure of the *shi...de* pattern proper; the remainder of sentence functions as its (sentential) subject, nominalized by the nominalizer *de*. Tang (1983: 165) also analyzes *shi* as the main predicate taking a sentential subject; he differs, however, from Paris (1979) in that he analyzes *de* as a sentence-final particle with a structural position higher than *shi* in the main clause, thus taking the entire sentence in its scope.

Huang (1988) does not distinguish between bare *shi* and *shi...de* and therefore does not provide any analysis for *de*. He analyzes *shi* as a subject raising auxiliary selecting an IP complement; hence the only movement from this IP complement is that of the subject.¹⁹

Chiu (1993), like Huang (1988), does not control for the presence or absence of *de*, and suggests the same analysis for both cases, with *de* being part of the VP inside the complement of *shi*. *Shi* is a functional category selecting an IP complement (NomP in her terminology); elements preceding *shi* are claimed to be topicalized and to bind small *pro*’s in their original position. There is no bipartitioning into focus and presupposition in Chiu’s approach; the clefted adjunct *zuotian* ‘yesterday’ in e.g., *Ta shi zuotian pengdao Lisi de* ‘It was yesterday that he met Lisi.’, occupies the same TP-adjoined position as it would in the corresponding normal sentence pattern: *Ta zuotian pengdao-le Lisi* ‘He yesterday met Lisi.’

Simpson & Wu (2002) do take *de* into account. In focus clefts, *de* heads the TP complement selected by *shi*, which is a kind of higher verbal or auxiliary element (p. 197). *De* itself takes an AspP complement, which raises to Spec, TP in order to produce the correct surface order (p. 190). (Note that this same underlying structure is proposed for both “Northern” ‘V *de* O’ and “Southern” ‘V O *de*’ focus clefts.) Again, nothing in the structure captures the bipartitioning into focus and presupposition. In the case of “non-past *shi-de* forms” (i.e., propositional assertion), by contrast, *de* is analyzed as D°. It selects a complex NP headed by a phonetically null light N and containing a complement clause (p. 188-189), the latter raising to Spec, DP to produce the correct surface order.

¹⁹ The mono-clausal analysis Huang (1988) proposes for focus clefts in fact only holds for medial *bare shi* (cf. Section 6.2 below).

Cheng (this volume) proposes the following structures for the family of constructions related to *shi...de*. The structure *shi* [_{SC} [_{subj} XP] [_{pred} *de*-clause]] is the base structure for ‘S *shi* VP *de*’ sentences with either broad or narrow focus as well as for pseudo-clefts ‘[*de*-clause] *shi* DP’. The former involves the raising of the subject from the *de*-clause, and is thus similar to the analysis presented here. In the latter the predicate raises, resulting in an *inverse predication* structure. Cheng postulates a *pro*-predication structure [*pro*_i *shi* [_{SC} [_{subj} *de*-clause] [_{pred} *t*_i]] for sentences with S-initial *shi*, which she claims allow both narrow (i.e., subject) and broad focus. Sentence-initial bare *shi* sentences involve a similar structure, with the difference being that the constituent immediately following *shi* (the small clause subject, for Cheng) is CP rather than a *de*-clause: ‘*pro*_i *shi* [_{SC} [_{subj} CP] [_{pred} *t*_i]]’. In all these structures, *shi* has the function of a copula, as in the analysis in this paper. For *de*, Cheng suggests an analysis along the lines of Cheng & Sybesma (2006), while noting difficulties in applying that analysis to some cases involving clefts.²⁰ Overall, there are broad points of agreement between Cheng’s typology of constructions and the one presented here. Main differences are Cheng’s positing of a small clause complement structure for all constructions involving *shi* (requiring concomitant *pro*-predicate raising in some), and the attention paid in this paper to the size of the clausal projection following *shi*.

5.3. Analysis

Any successful account of *shi...de* proper, the ‘V *de* O’ focus cleft, must explain the following properties of the construction:

- (53) a. It is a cleft: it obeys the exclusiveness condition and focuses an element in a designated position.
 b. The presupposition may not contain material generated above vP.
 c. Constituents other than the subject and adjuncts may not occur in the designated focus position.
 d. *de* is associated with [past] tense.

None of the analyses outlined in Section 5.2 account for all of these properties. Analyses which locate *de* in a high structural position in the clause (T° in Simpson & Wu 2002) would seem to predict that the presupposition in *shi...de* clefts may contain any material generated in TP (modal auxiliaries, *dou* ‘all’) or between T° and vP (negation, aspectual auxiliaries). But as we saw in Section 5.1, this is not the case. Note that the inability of this material to appear in the presupposition of *shi...de* clefts cannot plausibly be attributed to semantic factors. Not only do clefts in English and other languages freely allow such material to occur in the presupposition - so do sentence initial bare *shi* clefts in Chinese, as we saw in Section 4.2.

²⁰ Cheng and Sybesma (2006) treat *de* as the spell-out of a non-overt lambda-abstraction operator. Cheng (this volume, Section 1) suggests “that *de* indicates the presence of non-overt operators of different guises: aside from the lambda -abstraction operator, it also marks the presence of an assertion operator, which relates to sentential emphasis/focus (for bare-*de* sentences)”. Cheng (Section 2.1.1) notes a difficulty with this analysis:

“The null hypothesis that *de* in bare *de* sentences is also the spell-out of the generalized lambda-abstraction operator does not seem to be correct since the interpretation of bare *de* sentences does not appear to be compatible with a lambda-expression (with a property reading). However, it is still possible to maintain that we are dealing with only one *de*, by having *de* as marking the presence of a null operator, albeit the nature of the operator may be different.”

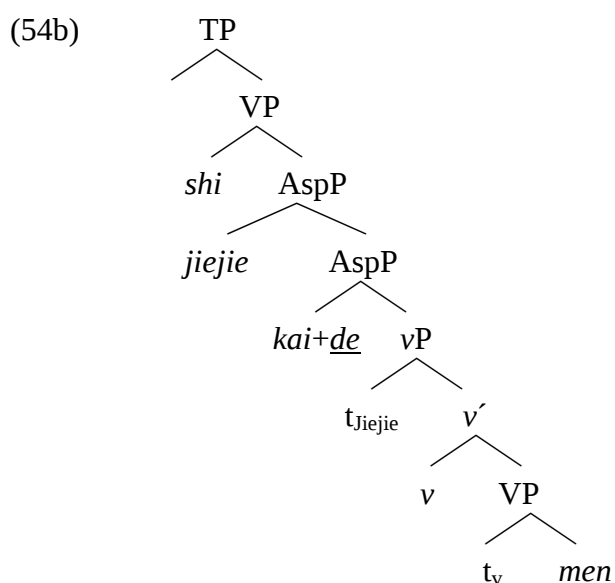
We might note that it is unclear in these cases what variable is bound by the proposed operator. More broadly, if some instances of *de* indicate the presence of a lambda operator, we might expect to find it at the TP level in all clauses with subjects, since lambda abstraction at this level is posited in many standard semantic treatments (e.g., Heim & Kratzer 1998).

The crucial difference between sentence initial bare *shi* clefts and *shi...de* clefts is precisely the absence of *de* and the concurrent absence of constraints *de* imposes on the size of its complement.

We therefore propose to locate *de* in a position directly above the base position of the subject (Spec, vP). Because of the temporal properties of *de* in the ‘V *de* O’ pattern, we identify *de* as the head of an AspP projection; were the position of *de* T°, we would expect it to co-occur with negation and auxiliaries.²¹ The basic structure we propose is shown in (54b-55b):

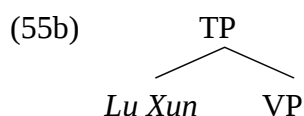
- (54) a. *Shi ta jiejie kai de men.* (= (40) above)
 be 3SG elder.sister open DE door
 ‘It was her elder sister who opened the door.’

Subject focus cleft

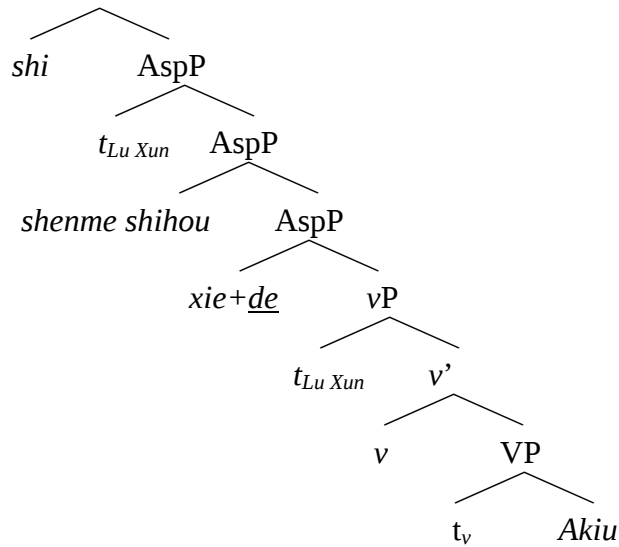


- (55) a. *Lu Xun shi shenme shihou xie de A Q?* (= (41) above)
 Lu Xun be what time write DE A Q
 ‘When was it that Lu Xun wrote A Q?’

Adjunct focus cleft



²¹ The unacceptability of aspect markers and auxiliaries presents a challenge for every approach where the complement of *shi* is TP or larger (cf. Simpson & Wu 2002, Cheng (this volume)), TP in principle being expected to contain a projection hosting aspect.



In the *shi...de* focus cleft structure, *shi* selects an AspP headed by *de*. This explains directly why in the ‘V *de* O’ pattern the presupposition may not contain material generated above AspP, and why *shi...de* clefts have a past temporal interpretation, which we identify as a [Past] feature that is part of the lexical meaning of *de* in this pattern. The lexical verb (*kai* ‘open’ in (54), *xie* ‘write’, in (55)) raises through *v* and left adjoins to *de* in Asp°, following the analysis of aspectual auxiliaries in Lin (2001). Asp° must bear an EPP or OCC feature in the framework of Chomsky (2004), to account for obligatory raising of the subject to Spec, AspP.

In the subject focus cleft (54), the subject is Case-licensed by *shi*. In the case of adjunct focus cleft (cf. (55)), the subject agrees with T and raises to check the EPP feature of T.²² The variation between subject and adjunct focus is determined by the surface position of the subject: the focused constituent is the item in Spec, AspP that is pf-adjacent to *shi*. In (54b), this is the subject *jiejie* ‘elder sister’; in (55b), the subject *Lu Xun* raises on to the subject position of the matrix clause, leaving the adjunct *shenme shihou* ‘when’ pf-adjacent to *shi*.²³ The inability of other constituents to be moved into the focus position adjacent to *shi* is explained by independent properties of Chinese syntax. The landing sites for topicalization and object fronting in Chinese are respectively TopP (Paul 2002) and a position below TP but above negation (Paul 2002, 2005); neither of these landing sites are contained in AspP.

The analysis we propose not only accounts for the distinctive properties of *shi...de* clefts, it also allows us to situate *shi...de* clefts within a typology of clefts. Crosslinguistically, clefts may be said to have the following properties (we set aside here the properties of pseudo-clefts):

²² Given that in Chinese adverbs obligatorily precede the verb, irrespective of the absence/presence of an aspectual suffix on the verb, it follows that so-called VP-level adverbs in fact need to adjoin to the highest verbal projection, in this case AspP. This holds both for *de* as an aspectual head and for aspectual suffixes such as the perfective *-le*. Thanks to an anonymous reviewer for raising this issue. (Also see Lin Tzong-Hong 2001: 258 for an explanation of adverbial distribution along similar lines).

²³ We have defined the position of the focused constituent in terms of pf-adjacency, but a purely syntactic definition is also possible. Pf-adjacency is the required relation in (55), where the trace of the subject intervenes between the focused adjunct and *shi*. The representation in (55) is motivated by the fact that the unmarked position of time adverbs is to the right of the subject. However if we adopt the position that intermediate traces are deleted (Lasnik & Saito 1992) or that multiple specifiers occupied only by traces are deleted (Moro 2000), we may then state, somewhat more satisfactorily, that the focused constituent occupies the outermost specifier of AspP.

- (56) a. A theta-bar matrix subject position.
 b. A copula or other non-theta role assigning predicator as matrix predicate.
 c. A ‘bipartitionable’ complement of the matrix predicator, consisting of
 d. A focused constituent adjacent to the predicator, and
 e. An open sentence containing a variable related to²⁴ the focused constituent.

Properties (56a) and (56b) are satisfied directly by (54-55). Properties (56c-d) follow as well, but in a manner strikingly different from English *it*-clefts. The bipartitionable complement of an English *it*-cleft consists of a focused constituent (56d) in a predication relation with a CP (56e); in a *shi...de* cleft of the ‘V de O’ type the focused constituent (56d) is in Spec, AspP; the open sentence (56e) corresponds to vP. This difference entails that English *it*-clefts and *shi...de* clefts are derived by different kinds of movement operations: the former are derived by A-bar type movement (Chomsky 1977), while the latter are derivable only by A-type movement (raising of the subject from Spec, vP to Spec, TP or to the specifier of an aspectual projection).²⁵ *Shi...de* clefts thus demonstrate that the basic properties of clefts are independent from the types of movement used to derive them; crosslinguistically, we may expect to find both A and A-bar movement clefts.

Analyzing *shi* as the matrix verb brings *shi...de* clefts into line with the crosslinguistic properties of clefts in (56a-b), in contrast with Chiu (1993) (who analyzes *shi* as a functional category). But it also accounts for the simple fact that *shi* in *shi...de* clefts can be negated, preceded by adverbs, and form an A-*bu*-A question just like the copular verb *shi* (57a-b) in other contexts:

- (57) a. *Ta bu / zhen shi ge huaidan.*
 3SG NEG/ really be CL scoundrel
 ‘He is not / really is a scoundrel.’
 b. *Tamen shi bu shi hao pengyou?*
 3PL be NEG be good friend
 ‘Are they good friends?’

- (58) *You / bu shi ta jiejie kai de men.* (cf. (40) above))
 again/ NEG be 3SG elder.sister open DE door

²⁴ We appeal here to the more general relation ‘related to’ rather than ‘bound by’ to accommodate the standard analysis of English *it*-clefts (Chomsky 1977), where the variable is bound by a null operator, which is related to the focused constituent by predication (Williams 1980).

²⁵ We thus concur with the insight of Huang (1982, 1988) that Chinese clefts are not derived by A-bar movement. Importantly, this holds both for the “Northern” ‘V de O’ type cleft as well as for the “Southern” type cleft with sentence-final *de*. We take no position as to whether adjunct focus as in (55) involves movement or base generation (external merge) of the adjunct in Spec, AspP. From a semantic standpoint, the issue depends upon how adjuncts are to be related to open sentences.

We also agree with Huang (1988: 45-47) who argues against a derivation relationship between clefts and pseudo-clefts. The fact that pseudo-clefts allow for all of the material excluded in ‘V de O’ focus clefts i.e., auxiliaries, negation, and aspect marking provides additional evidence. This sheds doubt on Cheng’s (this volume) analysis of pseudo-clefts as cases of “inverse predication” (in the spirit of Hoekstra & Mulder 1990, Moro 1997, Den Dikken 2006) (cf. (ii)), derived from the same base structure (i) that also gives rise to “canonical predication” i.e., the cleft structure (iii). Also cf. Section 6.3 below, where we show that extraction from focus clefts and propositional assertion is allowed, while it is barred from relative clauses.

(i) ‘*shi* .[_{SC} [_{SUBJ} DP] [_{PRED} e*de*]]

(ii) ‘[[.....*de*] *shi* DP

(iii) ‘S *shi* V (O) *de*’

‘It was again / it was not her elder sister who opened the door.’

- (59) *Lu Xun bu shi 1925 nian xie de A Q.* (cf. (41) above))
 Lu Xun NEG be 1925 year write DE A Q
 ‘It was not in 1925 that Lu Xun wrote A Q.’

- (60) *Lu Xun shi bu shi 1921 nian xie de A Q?*
 Lu Xun be NEG be 1921 year write DE A Q
 ‘Was it in 1921 that Lu Xun wrote A Q?’

Furthermore, like the copula *shi* which under certain circumstances is optional (cf. Lü 2000: 497), *shi* in both focus cleft and propositional assertion may be missing. The resulting “bare *de* sentences” (Cheng (this volume)) show the same ambiguity between focus clefts and propositional assertion as discussed for the *shi..de* patterns above and require the same careful analysis to tell these two constructions apart. Which construction is involved can be teased out by checking what kind of question the sentence can provide an answer to and by inserting *shi* in the appropriate position, an exercise going back to Zhu (1961: 9) and illustrated below:²⁶

- (61) a. *Ni yiqian hui bu hui xie ?*
 2SG formerly can NEG can write
 ‘Did you know how to write in former times?’
 b. *Wo yiqian (shi) hui xie de.* (propositional assertion)
 1SG formerly be can write DE
 ‘(It is the case that) I knew how to write in former times.’
- (62) a. *Shei xie de shi?*
 who write DE poem
 ‘Who is it that wrote a poem?’
 b. *(Shi) wo xie de shi.* (subject focus cleft)
 be 1SG write DE poem
 ‘It is I that wrote a poem.’
- (63) a. *Ni shenme shihou xie de shi?*
 2SG what time write DE poem
 ‘When was it that you wrote a poem?’

²⁶ Note that *shi* is no longer optional in the presence of negation, an observation valid for the copula *shi* in general:

- (i) *Ta (shi) Shanxi-ren.*
 3SG be Shanxi-person
 ‘She is from Shanxi.’
 (ii) *Ta bu *(shi) Shanxi-ren.*
 3SG NEG be Shanxi-person
 ‘She is not from Shanxi.’
 (iii) *Wo bu *(shi) zuotian xie de shi.*
 2SG NEG be yesterday write DE poem
 ‘It was not yesterday that I wrote a poem.’
 (iv) *Wo bu *(shi) cong lai bu chou yan de* (cf. (20) above)
 1SG NEG be ever NEG inhale smoke DE
 ‘It is not the case that I never smoked.’

- b. *Wo (shi) zuotian xie de shi.* (adjunct focus cleft)
 1SG be yesterday write DE poem
 'It was yesterday that I wrote a poem.'

Our analysis of the *shi...de* focus cleft is most comparable to Simpson & Wu (2002), who also analyze *shi* as the matrix verb and associate *de* with a (past) tense interpretation. However, Simpson & Wu's analysis suffers from their failure to distinguish verb-adjacent and sentence-final *de* in focus clefts. By situating *de* in T in both focus cleft patterns, they fail to explain why material such as negation and auxiliaries is excluded from the presupposition in 'V *de* O' clefts. It is also unclear under their analysis why only subjects and adjuncts can be focused under adjacency to *shi*; nor is it clear in the representation they propose what corresponds to the focus/open sentence bipartition structure characteristic of clefts.

In fact, Simpson & Wu's (2002) analysis with *de* in T (or higher) seems more appropriate for the Southern focus cleft pattern 'V O *de*' where negation and auxiliaries are acceptable inside the presupposition, indicating that the complement of sentence-final *de* is larger than vP (cf. footnote 17 above). As just noted, however, under such an analysis it is not immediately evident how to obtain the bipartitioning associated with the focus cleft interpretation. Recall that the Southern pattern with *shi* and sentence-final *de* can either be interpreted as propositional assertion or as an adjunct cleft:

- (64) *Ta shi gen ni kai wanxiao de.* (= (37))
 3SG be with 2SG open joke DE
 (i) '(It is the case that) he was joking with you.'
 (ii) 'It was with you that he was joking.'

A preliminary examination suggests that stress may play a role here. While the propositional assertion pattern (64i) is read with an even intonation, in the focus cleft pattern (65) the clefted constituent may receive intonational prominence:

- (65) *Ni gaocuo -le ; ta shi gen wo kai wanxiao de, bu shi gen ni kai de.*
 2SG err -PERF 3SG be with 1SG open joke DE NEG be with 2SG open DE
 ‘You’re wrong; it was me he made fun of, not you.’

As indicated in (65) *wo* 'I' may receive stress, further supporting the analysis of (65) in terms of a focus cleft construction rather than in terms of propositional assertion.

6. Summary and conclusions: The structural range of the *shi...de* collocation

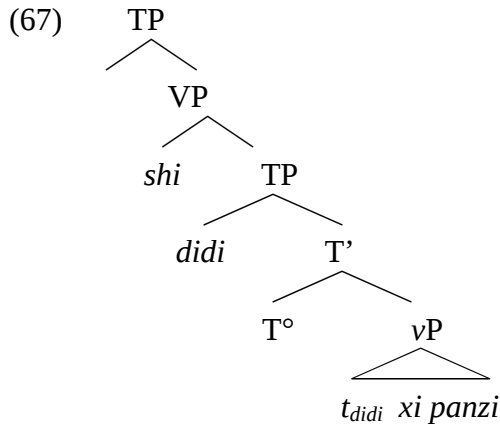
In the preceding section we argued for an analysis of *shi...de* proper, where this pattern has the basic properties of a cleft construction, but involves a presupposition smaller than the CP presupposition in English *it*-clefts, and derives an open sentence in the presupposition by A movement rather than A-bar movement. In this section, we return to the three other constructions reviewed in Sections 2-4, and motivate related analyses for these.

6.1. Sentence-initial bare shi

Recall (Section 4.2) that the sentence-initial bare *shi* pattern gives rise to a subject focus cleft interpretation when the subject is intonationally prominent. We also showed in Section 5.1 (52a,b) that modal auxiliaries, negation and aspectual auxiliaries are acceptable in this pattern, in direct contrast to *shi...de* proper. The same point is made by (66) below.

- (66) *Shi didi bu ken xi (*de) panzi.*
 be younger.brother NEG want wash DE plate
 'It was younger brother who didn't want do the dishes.'

This contrast shows that the complement of *shi* in the sentence-initial bare *shi* construction must be large enough to contain modals and negation; that is, minimally the size of TP:



Note that the cleft pattern in (67) shares with *shi...de* clefts the property that the open sentence in the presupposition (vP in (67)) is created by A-movement of the subject. This analysis of sentence-initial bare *shi* has some resemblances to the analysis proposed for the *shi...de* focus construction by Simpson & Wu (2002). The crucial differences are two: no *de* is present in (67), which, as we showed in Section 5, is directly related to the possibility of material occurring between TP and vP; and TP in (67) is finite. The finiteness of the embedded TP in (67) explains why there is no subject raising to the matrix TP in the bare *shi* construction; that is, why there is no medial bare *shi* cleft focus construction, as we showed in Section 2.

Given this account for the subject focus cleft with bare *shi*, how are we then to analyze the sentence-initial bare *shi* pattern bearing on the entire sentence in the meaning of ‘it is (really) that S’, ‘it is because S’, discussed in Section 4.1?

- (68) (*Lao Zhang weishenme mei you lai?*) *Shi ta -de chezi huai -le ma?* (= (28))
 Lao Zhang why NEG have come be 3SG-SUB car break-PERF PART
 (‘Why hasn’t Lao Zhang come?’) Is it because his car broke down?’

As far as we are able to determine, this pattern is structurally identical to the sentence-initial bare *shi* subject focus pattern in (67). This may be a feature of cleft constructions where an open sentence in the presupposition is created by A-movement: unlike clauses with variables created by A-bar movement, such clauses are potentially interpretable as complete, perhaps depending on the construal of the extracted NP. This systematic ambiguity allows a sentence with initial bare *shi* either to be interpreted as a subject cleft or as a complete clause containing no focused constituent. It appears to be the intonational prominence on the subject which enables speakers to distinguish subject clefts in this pattern.

6.2. Sentence-medial bare *shi*

In Section 2 we showed that sentence-medial bare *shi* is not a focus cleft structure, but instead involves association with focus: the focus is determined by intonational prominence, which can be assigned to any constituent in any position in the clause to the right of *shi*. We also showed in Section 2.2 that sentence-medial bare *shi* is a monoclausal pattern: in sentence-

medial bare *shi* examples such as (9a-d), the whole clause is in the scope of negation, whereas in *shi...de* clefts the presupposition is outside the scope of negation. Thus, scope of negation for medial bare *shi* is the same as that in a simple sentence or a simple sentence with negation preceding an auxiliary. Finally, examples such as (9) and (12b) show that sentence-medial bare *shi* may contain negation and aspectual auxiliaries; (69) below shows that the pattern may also include modal auxiliaries:

- (69) *Lao Wei shi xiang mingtian qu.*
 Lao Wei be want tomorrow go
 ‘Lao Wei wants to go tomorrow.’

A successful analysis of sentence-medial bare *shi* must therefore analyze it as a monoclausal pattern involving association with focus. A model is provided by the standard treatment of English emphatic *do* (also cf. (5) above):

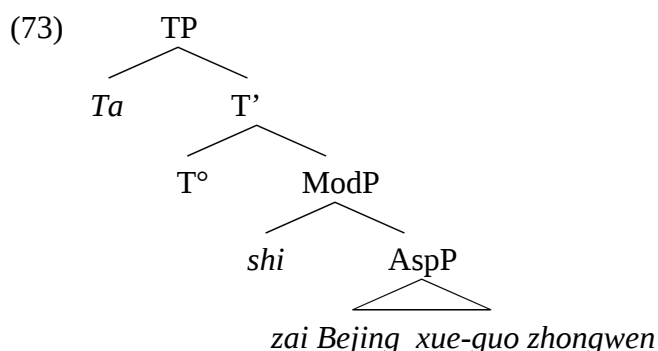
- (70) He did read the book.

Unlike English *do*, however, which is analyzed as the spellout of T or INFL with a prosodic prominence feature, medial bare *shi* is located in ModP below TP and NegP. This is motivated by the fact that T/Infl in Chinese is always empty (cf. Ernst 1994), as witnessed e.g. by the presence of adverbs below the subject, but above negation and auxiliaries:

- (71) *Ta xianran / jintian / ye bu neng lai.*
 3SG evidently/ today / also NEG can come
 ‘He (evidently/also) cannot come (today).’

The structure of (72) is thus (73):

- (72) *Ta shi zai Beijing xue -guo zhongwen, dan ye zai Shanghai xue -guo.* (= (12b))
 3SG be at Beijing study-EXP Chinese but also at Shanghai study-EXP
 ‘She studied Chinese in Beijing, but she also studied Chinese in Shanghai.’



In (73), the complement of *shi* can be AspP, AuxP or vP (with adjoined material), thus accounting for the presence of aspect markers and auxiliaries to the right of *shi*. The sentence-medial bare *shi* pattern lacks a biclausal structure and thus cannot be interpreted as a cleft.

6.3. Propositional assertion: NP *shi* V O *de*

As discussed above (cf. (39)), the *de* in propositional assertion must occupy the sentence-final position for “Northerners” as well. Recall (cf. Section 3 above) that the propositional assertion

pattern also allows for material diagnostic of projections higher than *vP* to appear between *shi* and *de*: negation (19, 20), modal auxiliaries (16, 17, 19, 21), and aspectual auxiliaries (18, 24). The pattern is not restricted to a past tense interpretation; future-oriented temporal adverbs are also allowed (19, 23).

This led Simpson & Wu (2002: 189) to analyze *de* in what they call “non-past *shi-de* forms” (p. 189) as *D°*. It selects a complex NP headed by a phonetically null light N and containing a complement clause, the latter raising to Spec, DP to produce the correct surface order (p. 188-189). However, the projection headed by *de* in the propositional assertion pattern cannot be analyzed as a complex NP, because it allows extraction, while complex NPs (both headed and headless) do not:²⁷

- (74) [*Dui ni*]_i, *ta shi* [_{DeP} *yiding hui t_i hao yi-beizi de*]. (propositional assertion)
 towards 2SG 3SG be certainly will good 1-lifetime DE
 'To you, (it is the case that) he will certainly be good an entire lifetime.' (= (18))

- (75) * [*Dui ni*]_i, *ta hen* [_{DP} [_{DeP} *t_i hui hao yi-beizi de*] (*ren*)]. (complex NP)
 towards 2SG 3SG hate will good 1-lifetime DE people
 '*[To you]_i, he hates people who will be good t_i an entire lifetime.'

Given these difficulties with analyzing *de* as *D°*, let us examine what other possibilities there are. If we follow Simpson and Wu (2002) in analyzing *de* as the head of a functional projection which takes the material to the right of *shi* as its complement, it is evident that *de* must occupy a higher position than the *Asp°* position we motivated for *de* in *shi...de* proper, the *shi...de* cleft construction. The question is how high.²⁸

Here crosslinguistic considerations come into play. At the end of Section 3 we noted that the propositional assertion pattern is widespread in East and Southeast Asia. Typically it is made up of a clause set off by a clause-final marker of subordination, predicated of the copula (which in some languages may be null); its pragmatic functions resemble those of the *shi...de* propositional assertion pattern. In this areal picture, however, Chinese presents a striking point of variation: in the Chinese propositional assertion, the subject is raised to matrix subject position. This is shown by simple word order: in Chinese the subject appears to the left of *shi*.

- (76) *Ta shi gen ni kai wanxiao de.* (=14)
 3SG be with 2SG open joke DE
 '(It is the case that) he was joking with you.'

In other East and Southeast Asian languages attesting the propositional assertion pattern, however, the subject appears to remain in the subordinate clause. The point is subtle, because

²⁷ Also note in this context that extraction is possible from focus clefts, which undermines any attempt to derive clefts and pseudo-clefts from the same underlying structure, as proposed by Cheng (this volume).

- (i) [*Gei Mali*], *ta shi* [*zuotian t_{pp} da de dianhua*]. (Adjunct focus)
 to Mary 3SG be yesterday call DE telephone
 '??To Mary, it is yesterday that he called on the phone.'
 (ii) * [*Gei Mali*], *wo renshi* [[*t_{pp} da dianhua de*] *nei -ge nanhai*]. (complex NP)
 to Mary 1SG know call telephone SUB that-CL boy
 '(*To Mary, I know the boy who called on the telephone).'

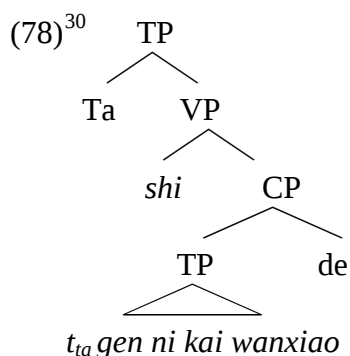
²⁸ While the difference in meaning between the focus cleft *shi...de* pattern proper and the propositional assertion pattern has been observed in the literature before (e.g. Dragunov 1952: §116; Zhu 1961: 10; Paris 1979: 111), no attempt has been made to systematically relate this interpretational difference to the existence of two separate structures with distinctive syntactic properties.

most of these languages are verb-final, but it can be shown, for example, that the subject in the Japanese *no da* propositional assertion pattern is internal to the clause headed by the subordination marker *no*:

- (77) a. [[Yamada sensei ga joodan o ossyatta] no] desu.
 Yamada teacher SUBJ joke OBJ said(HONORIFIC) NO is
 ‘(It is the case that) Prof. Yamada told a joke.’
- b. * [[Yamada sensei ga joodan o ossyatta] no] de irassyaimasu.
 Yamada teacher SUBJ joke OBJ said(HONORIFIC) NO is(HONORIFIC)
 ‘((It is the case that) Prof. Yamada told a joke.)’

While the honorific subject ‘Professor Yamada’ may trigger honorific marking on the subordinate verb ‘tell a joke’, it cannot trigger honorific marking on the matrix verb, the copula. This indicates that in the Japanese propositional assertion pattern, in contrast to Chinese, the subject is not raised into the matrix clause.

Summarizing the properties of the clause subordinated under *de* in the propositional assertion pattern, this clause must be large enough to accommodate such TP material as negation and modal auxiliaries, but, crucially, it must be non-finite, so as to force raising to the matrix subject position. Exploiting the proposals about the fine structure of the left clausal periphery developed by Rizzi (1997) and applied to Chinese by Paul (2005), we propose that *de* in this pattern resides in the head of a *non-root* CP and is associated with a [-finite] feature:²⁹



As indicated in (78), the sentence-final *de* is analyzed as C taking a TP complement, thus accounting for the presence of negation, auxiliaries etc. in the complement of *shi*.

6.5. The nature of *de*

In this article we have posited two different positions for *de*, the head of Aspect Phrase in *shi...de* focus clefts, and the head of DeP, a non-root complementizer in the propositional assertion pattern. This naturally raises the question of whether the two *des* are the same morpheme. We suggest that they are not. Additional supporting evidence for this conclusion, aside from the fact that *de* in focus clefts co-occurs with a much smaller inventory of material, comes from the fact that *de* in focus clefts selects only activity verbs (Tang 1983):

²⁹ Concerning the importance of the root vs. non-root dichotomy for the complementizer system in Mandarin Chinese, cf. Paul (2007) and references therein.

³⁰ We show the CP headed by *de* in (78) as a right-headed projection, for expository purposes. In an antisymmetric approach (Kayne 1994) this order is derived by leftward movement of TP, as outlined by Simpson and Wu (2002).

- (79) **Shi ta tai jiao'ao de.* (example slightly modified from
 be 3SG too proud DE Tang 1983: 175, (268a))
 (Intended meaning: 'It's him that is too proud.')

De in the propositional assertion pattern, by contrast, occurs with a wide variety of predicates, including adjectives (19) and stative verbs (24). This is precisely what we might expect of an aspectual head, that it should select only certain aktionsart types; *de* qua complementizer, on the other hand, should have no bearing on the type of verb embedded in its clausal complement.³¹

The acceptability of (80) further confirms that it is the presence of *de* which is at the origin of the unacceptability of (79); sentence-initial bare *shi*, by contrast, does not impose this kind of selectional constraints on the predicate it selects as its complement.³²

- (80) *Shi ta tai jiao'ao.*
 be 3SG too proud
 'It's him that is too proud.'

7. Conclusion

In this paper we have argued for distinguishing four basic patterns, summarized in (81):

- (81) a. **Cleft focus patterns**
 i. Sentence-initial bare *shi* (subject focus only)
 ii. *Shi...de* proper (subject and adjunct focus)
- b. **Association with focus pattern**
 Sentence-medial bare *shi*
- c. **Propositional assertion**

To some degree each of these patterns shows crosslinguistically well attested properties. The two focus cleft constructions involve the copula *shi*. The association with focus pattern involves a spellout of emphatic Mod⁰; the fact that this spellout also happens to be *shi* is one source of the confusion in previous treatments of *shi...de* collocations in general. The propositional assertion pattern again involves the copula *shi* and a marker of clausal subordination; again, the fact that this marker happens to be *de* is a source of confusion in earlier descriptions.

³¹ Ohta (1958/1981: 356-357) argues on philological grounds that *de* in the '...*shi* V *de* O' pattern has the same source as what is traditionally labeled the possessive marker/nominalizer *de* (that is, the same source as clause-final *de* in the propositional assertion pattern). It first appears in the clause-medial position of the *shi...de* proper pattern in the Yuan period (13th c. - 14th c.). In this position, Ohta speculates that it may well have come to be associated by speakers with aspectual *de*, cognate with the verb 'get, obtain'. Also cf. Dragunov (1952: §86; §118) for a similar observation.

³² The individual vs. stage level predicate distinction does not play a role here. (Thanks to Huba Bartos for raising this issue.) The *shi...de* focus cleft is unacceptable with individual-level (cf. (79)) and stage level adjectival predicates (cf. (i)) alike, while bare *shi* allows adjectival predicates of both types (cf. (80), (ii)):

- (i) * *Zuotian shi ta tai lei de*
 yesterday be 3SG too tired DE
- (ii) *Zuotian shi ta tai lei le*
 yesterday be 3SG too tired PART
 'It was him who was too tired yesterday.'

From a typological standpoint, the two very striking Chinese properties of the constructions in (81) are the pervasive occurrence of raising to the subject position of the copular verb (in *shi...de* proper with adjunct focus and in propositional assertion), and the existence of cleft constructions with presuppositions smaller than the CP domain, in fact confined to A-movement domains. It seems likely that these two distinctive properties are related. While a full investigation must await a better crosslinguistic understanding of clefts and related constructions, it may be that the unavailability of null operator movement in Chinese is the reason for the non-occurrence of A-bar movement clefts. The possibility of subject raising out of clefts and related constructions then correlates with the fact that the propositional projections embedded in these constructions are ‘small’ enough to be A-movement domains.

References

- Chao, Yuen Ren (1968). *A Grammar of Spoken Chinese*. Berkeley et alibi: California University Press.
- Cheng, Lisa Lai-Shen (this volume). Deconstructing the *shi...de* construction.
- Cheng, Lisa Lai-Shen and Rint Sybesma (2006). A Chinese relative. In *Organizing Grammar. Linguistic Studies in Honor of Henk van Riemsdijk*. Hans Broekhuis, Norbert Corver, Riny Huybregts, Ursula Kleinhenz, and Jan Koster (eds.), 69-76. Berlin: Mouton.
- Chiu, Bonnie H.-C. (1993). *The Inflectional Structure of Mandarin Chinese*. Doctoral dissertation, UCLA.
- Chomsky, Noam (1977). On *wh*-movement. In *Formal Syntax*, Peter Culicover, Thomas Wasow, and Adrian Akmajian (eds.), 71-132. New York: Academic Press.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 2004. Beyond explanatory adequacy. In *Structures and beyond*, Adriana Belletti (ed.), 104-131. Oxford: Oxford University Press.
- Ding, Li (1999). Cong wenju xitong kan *shi bu shi* wenju [On yes-no questions in the light of question system]. *Zhongguo Yuwen* 1999, nr. 6, 415-420.
- É. Kiss, Katalin (1998). Identificational focus versus information focus. *Language* 74: 245-73.
- Ernst, Thomas (1992). The phrase structure of English negation. *The Linguistic Review* 9: 109-144.
- Ernst, Thomas (1994). Functional categories and the Chinese Infl. *Linguistics* 32: 191-212.
- Hedberg, Nancy (2000). The referential status of clefts. *Language* 76: 891-920.
- Heim, Irene and Angelika Kratzer (1998). *Semantics in Generative Grammar*. Oxford: Blackwell.
- Huang, C.-T. James (1982). *Logical Relations in Chinese and the Theory of Grammar*. Ph.D. Dissertation, MIT, Cambridge, Mass.
- Huang, C.-T. James (1984). On the distribution and reference of empty pronouns. *Linguistic Inquiry* 15: 531-574.
- Huang, C.-T. James (1988). Shuo *shi* he *you* [On *shi* and *you*]. *Bulletin of the Institute of History and Philology* 59, part 1: 43-64.
- Jackendoff, Ray (1972). *Semantics in Generative Grammar*. Cambridge, Mass: MIT Press.
- Kayne, Richard S. (1994). *The Antisymmetry of Syntax*. Cambridge, Mass: MIT Press.
- Kuno, Susumu (1973). *The Structure of the Japanese Language*. Cambridge, Mass: MIT Press.
- Laka, Itziar (1990). Negation in Syntax: On the nature of functional categories and projections. Ph.D. dissertation, MIT, Cambridge, Mass.
- Lasnik, Howard and Mamoru Saito (1992). *Move alpha: Conditions on its Application and Output*. Cambridge, Mass: MIT Press.
- Li, Charles N. and Sandra A. Thompson (1981). *Mandarin Chinese. A functional Reference Grammar*. Berkeley et alibi: University of California Press.
- Li, Charles N., Sandra A. Thompson and Bojiang Zhang (1998). Cong *huayu jiaodu lunzheng yuqici de* [The particle *de* as an evidential marker in Chinese]. *Zhongguo Yuwen* 1998, nr. 2: 93-102.
- Lin, Tzong Hong (2001). Light verb syntax and the theory of phrase structure. Ph.D. dissertation, University of California at Irvine.
- Lu, Peng (2003). La subordination adverbiale en chinois contemporain. Ph.D. dissertation, University Paris 7 - Denis Diderot, Paris.
- Lü, Shuxiang (ed.) (2000). *Xiandai hanyu babaici* [800 words of Modern Chinese]. Beijing: Shangwu yinshuguan.
- Matisoff, James (1972). Lahu nominalization, relativization, and genitivization. In *Syntax & Semantics* volume 1, Kimball, John (ed.), 237-257. New York: Academic Press.
- Moro, Andrea (2000). *Dynamic Antisymmetry: Movement as a Symmetry breaking Phenomenon*. Cambridge, Mass: MIT Press.
- Ohta, Tatsuo (1958). *Chuugokugo rekishi bunpoo* [History of Chinese Grammar]. Tokyo: Hooyu shoten. [reprint 1981].
- Okell, John (1969). *A Reference Grammar of Colloquial Burmese*. London: Oxford University Press.
- Paris, Marie-Claude (1979). *Nominalization in Mandarin Chinese*. Paris: Département de Recherches linguistiques, Université Paris 7.

- Paul, Waltraud. 2002. Sentence-internal topics in Mandarin Chinese: The case of object preposing. *Language and Linguistics* 3, 4: 695-714.
- Paul, Waltraud. 2005. Low IP area and left periphery in Mandarin Chinese. *Recherches linguistiques de Vincennes* 33: 111-134.
- Paul, Waltraud. 2007. The in subordinate subordinator *de* in Mandarin Chinese. Ms., CRLAO, Paris.
- Paul, Waltraud and John Whitman 2001. The complement structure of *shi...de* clefts in Mandarin Chinese. Paper presented at the *Joint Meeting of the 10th Annual Conference of the International Association of Chinese Linguistics & the 13th North-American Conference of Chinese Linguistics*, University of California at Irvine, June 22-24, 2001.
- Paul, Waltraud and John Whitman 2005. A new analysis of *shi...de* focus clefts in Mandarin Chinese. Paper presented at the *10th Annual Conference of the International Association of Chinese Linguistics*, Leiden University, June 9-11, 2005.
- Rizzi, Luigi (1997). The fine structure of the left periphery. In *Elements of Grammar: Handbook of Generative Syntax*, Liliane Haegeman (ed.), 281-337. Dordrecht: Kluwer.
- Rooth, Mats (1985). Association with focus. Ph.D. Dissertation, University of Massachusetts.
- Selkirk, Elisabeth (1984). *Phonology and Syntax: The Relation between Sound and Structure*. Cambridge, Mass: MIT Press.
- Simpson, Andrew and Zoe Xiu-Zhi Wu (2002). From D to T - Determiner Incorporation and the Creation of Tense. *Journal of East Asian Linguistics* 11: 169 - 209.
- Szabolsci, Anna (1981). Compositionality in focus. *Folia Linguistica [Acta Societatis Linguisticae Europaeae]* 15: 141-63.
- Tang, Chih-Chen Jane (2001). Functional projections and adverbial expressions in Chinese. *Language and Linguistics* 2: 203-241.
- Tang, Ting-chi (1983). Guoyu de jiaodian jiegou: fenlieju, fenlie bianju yu zhun fenlieju [Focusing constructions in Chinese: cleft sentences and pseudo-cleft sentences]. In *Universe and scope. Presupposition and quantification in Chinese*. Ting-chi Tang, Robert L. Cheng, and Ying-che Li (eds.), 127 - 226. Taipei: Student book Co.
- Teng, Shou-Hsin (1979). Remarks on Cleft sentences in Chinese. *Journal of Chinese Linguistics* 7, 1: 101-114.
- Tsai, Mei-chih (1995). La modification adverbiale et l'ordre des mots en chinois. Ph.D. Dissertation, University Paris 7.
- Tsai, Wei-Tian Dylan (2004). Tan *zhi* yu *lian* de xingshi yuyi [On formal semantics of *zhi* and *lian*]. *Zhongguo Yuwen* 2004, nr. 2: 99-111.
- Williams, Edwin (1980). Predication. *Linguistic Inquiry* 11: 203-238.
- Wu, Zhongwei (2001). Shilun hanyu juzi de zhu-shu jiegou [On the topic - comment structure in a Chinese utterance]. *Yuyan Jiaoxue yu Yanjiu* 2001, nr. 3: 11-17.
- Xu, Liejiong (2002). Hanyu shi huati gainian jiegou hua yuyan ma? [Whether Chinese is a discourse configurational language]. *Zhongguo Yuwen* 2002, nr. 5: 400-410.
- Zheng, Yide, Jingheng Sheng, Yuehua Liu, and Jiarong Yang (1992). *Hanyu Yufa Nandian Sheyi* [Difficult points in Chinese grammar]. Beijing: Huayu jiaoxue chubanshe.
- Zhu, Dexi (1961). Shuo *de* [On *de*]. *Zhongguo Yuwen*, December 1961: 1-15.