

Remarks on Shi-Support in Modern Mandarin

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Abstract

This paper argues that constructions involving shi ('be')-support in Modern Mandarin (MM) are not the overt counterpart of do-supported constructions in English. While do-support typically licenses vP ellipsis in English, what shi-support licenses in MM is an instance of deep anaphora, in the sense of Sag (1976), and Hankamer and Sag (1976). Along this line of analysis, constructions involving shi-support in MM are treated as instances of Null Object Constructions (NOCs) or an extreme case of DP-deaccenting and shi is analyzed as a linking verb (copula), instead of an (emphatic) modal/auxiliary (contra Li, G. 2002, Xu 2003, Li, A. 2005, Soh, 2007).

Key Words: *shi*-support, vP Ellipsis, copula, DP-deaccenting, Null Object Construction (NOC)

1. Introduction

Do-support can be used to license vP ellipsis (vPE) in English as shown in (1a-b), regardless of verb types in the antecedent clause.¹ The strict reading and the sloppy reading are equally available:

(1) vPE licensed by *do*-support in English:

- a) John likes his brother and Bill does [_{vP} ___], too. *State*
 - i). John likes his brother and Bill also likes John's brother. (strict)
 - ii). John likes his brother and Bill likes his own brother. (sloppy)
- b) John criticized his brother and Bill did [_{vP} ___], too. *Activity*
 - i). John criticized his brother and Bill also criticized John's brother. (strict)
 - ii). John criticized his brother and Bill criticized his own brother. (sloppy)

In Modern Mandarin (MM), it has been argued within the generative framework that the overt counterpart of *do*-support is *shi* ('be')-support (Li, G. 2002, Xu 2003, Li, A. 2005, Soh, 2007). Thus, like *do*-support in English, *shi*-support in MM can also be utilized to license certain constructions that seem to be not fully-fledged:

(2) Constructions involving *shi*-support in MM:

Zhangsan xihuan ta-de didi. Lisi ye shi. *State*: cf. (1.a)
Zhangsan like his younger-brother Lisi also be
'Zhangsan likes his younger brother; Lisi does, too.'

- a). Zhangsan likes his younger brother and Lisi also likes Zhangsan's younger brother. (strict)
- b). Zhangsan likes his younger brother and Lisi likes his own younger brother. (sloppy)

¹ This is traditionally termed as VP Ellipsis (VPE). The difference between vP Ellipsis (vPE) and VPE is irrelevant to the argumentation made in this paper. For brevity and consistency, vPE is chosen. For extensive argumentation that traditional VPE should be analyzed as vPE, see Li, G. (2002).

Compared with (1.b), in which the strict reading and the sloppy reading are equally available, it is dubious that (4) is just another instance of *vPE* as in (1.b), which exhibits *equally* the strict versus the sloppy reading.

To improve the acceptability of (4), some adverbials need to be added in the antecedent clause:³

- (5) Zhangsan *henhen-de piping-le ta-de didi*. Lisi *ye shi*.
 Zhangsan vigorously-DE criticize-Asp. his younger-brother Lisi also be
 ‘Zhangsan criticized his younger brother vigorously; Lisi did, too.’
- a). ?? Lisi also criticized Zhangsan’s younger brother vigorously. (strict)
 b).? Lisi criticized his own younger brother vigorously. (sloppy)

Interestingly, although (5) is acceptable to all native speakers of MM that have been surveyed, the sloppy reading is still preferred. Thus, it is still dubious to analyze the improved version of (4), namely (5), as an instance of *vPE* as in (1.b) based on the diagnostic of equal distribution of both the strict and the sloppy reading.

Similarly, although *shi*-support can be used to substitute resultative verbs in MM, the distribution of the strict reading and the sloppy reading is not equal:

- (6) ? Zhangsan *da-shang-le ta-de tongxue*. Lisi *ye shi*.⁴
 Zhangsan beat-wound-Asp. his classmate Lisi also be
 ‘Zhangsan beat-wounded his classmate; Lisi did, too.’
- a). ??/* Lisi also beat-wounded Zhangsan’s classmate. (strict)
 b). Lisi beat-wounded his own classmate. (sloppy)

For some natively speakers of MM that have been surveyed, the strict reading does not exist in (6). For others, it exists. But it is rather weak. The sloppy reading, however, can be easily obtained for most native speakers of MM that have been surveyed. This unequal distribution of the strict versus the sloppy reading further casts doubt on analyzing the *shi*-supported construction as an instance of *vPE*.

3. Diagnostic of *vPE* Based on Strict versus Sloppy Reading

The availability of the strict reading and the sloppy reading has been employed as a diagnostic for uncovering constructions like *vPE*. As far as MM is concerned, Li, G. (2002) has argued extensively that constructions involving *shi*-support in MM can be analyzed as an instance of *vPE* exactly because they demonstrate the availability of both the strict reading and the sloppy reading. As I have argued in the previous section, it is not the case that all *shi*-supported constructions show an equal distribution for both the strict reading and the sloppy reading. Typically, action verbs and resultative verbs, when substituted by *shi*-support, show much stronger tendency for the sloppy reading rather than the strict reading. In this section, we will question the validity of the strict versus sloppy reading as a diagnostic. I will argue that this is not a sufficient means to uncover *vPE*.

It is well-known that the availability of the strict reading and the sloppy reading is not peculiar to *vPE* constructions. Deaccented *vP*, for example, also shares this property (Tancredi 1992):

- (7) John₁ said he₁’s a genius because ...
- i). BILL₂ did __ (vPE)
 ii). BILL₂ said he’s a genius. (vP deaccenting)
- a. = BILL₂ [said he₁’s a genius] strict (*he = John, as in the antecedent VP*)
 b. = BILL₂ [said he₂’s a genius] sloppy (*he = Bill*)

³ I do not specify which type of adverbs that can be added because adverbs in general, that is, any types of adverbs (i.e., manner, degree, frequency, reason, time, location, etc.) can rescue *shi*-support in (4).

⁴ For some native speakers of MM (such as me), (6) is marginally acceptable, though we all agree that it is much better than (4).

Both ν PE (7.i) and ν P deaccenting (7.ii) show an equal availability of the strict reading (7a) and the sloppy reading (7b).

Similarly, constructions involving *do it/that* anaphora also show an equal availability of the strict reading (8a) and the sloppy reading (8b) (Sag 1976; Hankamer and Sag 1976):⁵

(8) John₁ beat his₁ classmates, and Bill *did it/that*, too.

- a. = Bill₂ [beat his₁ classmates] *strict* (*his* = John, as in the antecedent VP)
 b. = Bill₂ [beat his₂ classmates] *sloppy* (*his* = Bill)

Thus, if we have observed a construction that shows equal distribution of both the strict reading and the sloppy reading, it is not necessarily the case that it must be an instance of ν PE. It could be some other kinds of under-generated constructions. As shown above, constructions such as ν P-deaccenting or constructions involving *do it/that* anaphora can also share this trait. Under this scenario, the strict versus sloppy reading cannot be utilized as a sufficient diagnostic to uncover ν PE.

In terms of the *shi*-supported construction in MM, it could be the case that instead of a ν P or Σ P that has been deleted, what is unpronounced is simply a DP. Under this analysis, *shi* can be treated as nothing more than a regular linking verb (copula) and the whole construction is just another instance of Null Object Constructions (NOCs) in MM:

(9) Analyzing constructions involving *shi*-support in MM as an instance of NOCs:

- Zhangsan xihuan ta-de didi. Lisi ye shi [DP ___] . (cf. (3))
 Zhangsan like his younger-brother Lisi also be

The fact that the *shi*-support construction is only compatible with state verbs, activity verbs that are modified by adverbials, which indicate some kind of states (5) and resultative verbs, which always entail a ‘resulting’ state (6), indicates that *shi*-support is only used to refer some kind of states. Under this approach, the unpronounced DP in (9) can be easily reconstructed as something like *zheyang* (‘this state’):⁶

(10) Reconstructing the unpronounced DP in (9) as *zheyang* (‘this state’):

Zhangsan xihuan ta-de didi. Lisi ye shi [DP *zheyang*].

Zhangsan like his younger-brother Lisi also be this state

‘(lit.) Zhangsan likes his younger brother. Lisi also holds the same kind of (psychological) state.’

One way to perceive (9) in terms of (10) is that (9) is an extreme case of DP-deaccenting (cf. ν P-deaccenting) based on (10). That is, *zheyang* (‘this state’) is so weakened in pronunciation that it becomes ‘mute’ in (9). The other way to interpret (9) is that it is simply a covert pro-form of DP that can be reconstructed as *zheyang* (‘this state’) (cf. *do it/that* as a pro-form of ν P), given that MM allows for NOCs (Huang 1984, 1987, 1998, Xu, 1986, Li, A. 2005, Li, A. and Aoun 2008, inter alia). In either approach, the availability of the strict and the sloppy reading is thus due to the DP or the pro-form of DP that is not pronounced, not ν P ellipsis. This position will be further argued in Section 5 in which the *shi*-support construction will be compared with *do it/that* anaphora in particular.

4. *Shi*-support is not *do*-Support

There are some other traits of *shi*-support in MM that indicate clearly that it is not an instance of *do*-support as in English. These include: (a) the *shi*-support construction cannot be negated (11); (b) the *shi*-support construction must co-occur with *ye* (‘also’) (12) and (c) it cannot occur in some putative Antecedent Contained Deletion (ACD) constructions in MM that has been argued to be another instance of ν PE (13) (May 1985, Larson and May 1990, Lasnik 1999, Hornstein 1994, 1995, Soh 2003, inter alia):

⁵ For the distribution of *do it/that* anaphora in English, see Fiengo and May (1994: pp.248, footnote 13). In general, *do it/that* is not compatible with stative verbs: *Max knows French and Oscar does it, too.

⁶ Of course, the missing material can also be reconstructed as *nayang* (‘that state’), depending on the speaker’s viewpoint. Which specific demonstrative is chosen in a particular context is irrelevant to the point made in this paper. For brevity, I choose *nayang* (‘that state’) throughout the paper.

- (11) The *shi*-support construction cannot be negated:
 Zhangsan hen xihuan Shufen. * Wo bu shi.
 Zhangsan very like Shufen I not be
 '(Intended) Zhangsan likes Shufen very much, (but) I don't.'
- (12) The *shi*-support construction must co-occur with *ye* ('also'):⁷
 Zhangsan xihuan Shufen, yinwei wo *(ye) shi.
 Zhangsan like Shufen because I (also) be
 'Zhangsan likes Shufen because I also do.'
- (13) The *shi*-support construction cannot occur in some putative ACD constructions in MM (See Ai 2008 for more detailed discussion of ACD in MM):⁸
 *Zhangsan henhen-de zou-le [Lisi ye shi] de mei-ge ren.
 Zhangsan violently-DE beat-Asp. Lisi also be DE every-CL people
 '(Intended.) Zhangsan violently beat everyone that Lisi (also) did.'

Compared with the respective English counterpart in (11-13) – as the relevant translation shows, it is unlikely that *shi*-support in MM is an instance of *do*-support as in English: in (11), obviously *do*-support in English can be negated; in (12), presumably 'too' in 'because I do, too' or 'also' in 'I also do' can be dropped and in (13), *do*-support can definitely occur in ACD constructions in English.

5. The *Shi*-support Construction Is an Instance of Deep Anaphora

To differentiate *vPE* from *do it/that* anaphora, Sag (1976) and Hankamer and Sag (1976) have employed two diagnostics. One is called the syntactic versus the pragmatic control and the other is called the missing antecedent phenomenon.

Typically, pragmatically controlled contexts (henceforth, *pragmatic control*), i.e., contexts in which the target, either *vPE* or *do it/that* anaphora are employed without any linguistic antecedents, only *do it/that* anaphora can survive (14b, 15b). *vPE*, on the other hand, cannot occur under such contexts (14a, 15a):

- (14) a. [Hankamer attempts to stuff a 9-inch ball through a 6-inch hoop]
 Sag: # It's not clear that you'll be able to [_{VP} ____].⁹
 b. [Same context]
 Sag: It's not clear that you'll be able to *do it*. (Hankamer and Sag, 1976: (3-4))
- (15) a. [Sag produces a cleaver and prepares to hack off his left hand]
 Hankamer: # Don't be alarmed, ladies and gentlemen, we've rehearsed this act several times, and he never actually does [_{VP} ____].
 b. [Same context]
 Hankamer: Don't be alarmed, ladies and gentlemen, we've rehearsed this act several times, and he never actually *does it*. (Hankamer and Sag, 1976: (6))

To use *vPE* properly in (14a) and (15a), linguistic antecedents must be provided. This is shown in (16) and (17), respectively:

⁷ I thank C.-T. James Huang for some detailed discussion and clarification on the data in (11-12).

⁸ *Shi*-support cannot occur in a Pseudo-Gapping construction in MM, either. Compare (i) and (ii):

(i) (?) John will pull you out of the airplane, like he did ____ his brother.

(ii) *Zhangsan hui ba-ni cong feiji-li la-chu-lai de,

Zhangsan will BA-you from airplane-inside pull-out-come DE, jiu xiang ta shi ____ ta xiongli.

just like he SHI ____ his brother. But since Pseudo-Gapping is in general prohibited in MM (Ai 2008), I will not include this as a valid argument against analyzing the *shi*-support construction as an instance of *vPE* in MM.

⁹ In this paper, the cross-hatch (#) indicates that the so marked sentence is incompatible with the indicated context (which is described within a pair of brackets). The notation is following Sag (1976) and Hankamer and Sag (1976).

- (16) Hankamer has [_{vP-antecedent} *stuffed a 9-inch ball through a 6-inch hoop*];
It's not clear that you'll be able to [_{vP-ellipsis} ~~stuff a 9-inch ball through a 6-inch hoop~~]. (cf. (14a))
- (17) It seems that Sag has [_{vP-antecedent} *hacked off his left hand*];
but he never actually did [_{vP-ellipsis} ~~hack off his left hand~~]. (cf. (15a))

Since vPE in (16) and (17) has linguistic (syntactic) vP antecedent, it is an instance of syntactically-controlled environment (henceforth, *syntactic control*). Thus, while *do it/that* anaphora can occur under pragmatic control, vPE requires syntactic control.

The difference between *do it/that* anaphora and vPE can also be observed by the missing antecedent phenomenon. A typical example given by Sag (1976) and Hankamer and Sag (1976) is shown in (18):

- (18) I've never ridden a camel_{i/*j}, but Ivan has [_{vP} ___],
and he says *it*_j stank horribly. (Hankamer and Sag, 1976: (23b))

(18) is an instance of vPE. As the index shows, *it* in the final clause cannot take “a camel” from the first clause as its antecedent. Instead, it takes an antecedent from within the vP gap in the middle clause. At the surface, the antecedent for *it* seems to be missing (hence, the missing antecedent phenomenon). This is compared with (19), an instance of *do it/that* anaphora:

- (19) *Jack didn't cut the bread with a knife – Bill *did it*,
and *it* was rusty. [*it* = the knife Bill cut the bread with] (abridged from Hankamer and Sag, 1976: (30))

As (19) indicates, *do it/that* anaphora does not allow for the missing antecedent phenomenon.

For brevity, Sag (1976) and Hankamer and Sag (1976) call vPE anaphora an instance of *surface anaphora*, which typically cannot tolerate pragmatic control and allows for the missing antecedent phenomenon and *do it/that* anaphora an instance of *deep anaphora*, which typically tolerates pragmatic control and resists the missing antecedent phenomenon.

With this dichotomy between vPE and *do it/that* anaphora, let us turn to the *shi*-support construction in MM. As (20) and (21) indicate, the *shi*-support construction allows for pragmatic control (20a-b) and resists the missing antecedent phenomenon (21):

- (20) a. [Seeing that Zhangsan has got chickenpox on his face, Shufen whispers to Wangwu while keeping her eyes on Zhangsan]
(?) Lisi ye shi.
Lisi also is
'(Lit.) Lisi is also like this'.
- b. [Seeing that Zhangsan has got chickenpox on his face]
Shufen: Zhe dou zenme le? Na tian wo jian dao Wangwu, ta ye shi.
this all what Part. that-day I see-Asp. Wangwu he also be
'What the hell is going on? That day, I saw Wangwu, so is he.'
- (21) *Zhangsan zai Meiguo kaiche zhuang-le ren, Lisi ye shi, tamen dou si-le.
Zhangsan in U.S. drive-car hit-Asp. people Lisi also be they all die-Asp.
'?/? (Lit.) Zhangsan hit someone in the U.S. by driving a car, so is Lisi and they are all dead.'

While (20a) is an instance of *strong* pragmatic control as one single utterance containing *shi*-support is embedded under relevant pragmatic context, (20b) is an instance of *weak* pragmatic control as there are other utterances besides the *shi*-support construction under the relevant pragmatic context (see Ai 2008 for detailed discussion of *weak* versus *strong* pragmatic control). Although (20a) is slightly less acceptable than (20b), none of the native speakers I have surveyed found it totally 'bizarre' or ungrammatical.¹⁰

¹⁰ It seems that in general, adding some background utterances can help greatly to improve the judgment for the *shi*-support construction under pragmatic control. In particular, the demonstrative *zhe* ('this') in (20b) has provided some hints to the reconstruction of the gap after *shi*.

The utterance in (21) is ungrammatical under the reading according to which the pronoun *tamen* ('they') is construed as the victims of Lisi's car accidents (as the missing antecedent phenomenon must take the medial 'elliptical' clause as the reference point). It is perfectly acceptable, however, if the pronoun *tamen* ('they') refers to Zhangsan and Lisi.

Since the *shi*-support construction patterns with *do it/that* anaphora in that it allows for pragmatic control and resists the missing antecedent phenomenon, it should also be treated as an instance of deep anaphora. Since ν PE is typically argued to be an instance of surface anaphora (Sag 1976; Hankamer and Sag 1976), the *shi*-support construction cannot be analyzed as an instance of ν PE.

6. *Shi* as a Linking Verb (Copula) in the *Shi*-Support Construction

It has been argued in Huang (1988) and Soh (2007) that there are only two kinds of *shi* in MM: one as a copula and the other as an (emphatic) modal/auxiliary. It has been noticed in any 'traditional' Chinese grammar book, e.g., Li and Thompson (1989) that when used as an emphatic modal/auxiliary, *shi* has to be stressed in the relevant utterance (22) or the element immediately following *shi* has to be stressed (23):

(22) Zhangsan SHI xihuan Lisi.
Zhangsan SHI like Lisi
'Zhangsan DOES like Lisi' or 'Zhangsan INDEED likes Lisi.'

(23) Zhangsan shi XIHUAN LISI, (bu shi HEN ta).
Zhangsan SHI like Lisi not SHI hate him
'(Lit.) What Zhangsan does is to like Lisi, (not to hate him).'

In all our examples above that involve *shi*-support, none of the *shi* requires stress and what is following *shi* is empty. In other words, the whole *shi*-support construction bears no stress. This unstressed form of *shi* is typically a prosodic feature of a linking verb (copula), not that of an emphatic modal/auxiliary.

This agrees with the DP proposal in Section 3 that treats the *shi*-support construction as an instance of NOCs or an extreme case of DP-deaccenting instead of ν PE. Under this analysis, *shi* is a linking verb (copula) and what is unpronounced after a linking verb can be reasonably a DP.

If this analysis is on the right track, the syntactic position for *shi* in *shi*-supported construction is not higher than a regular modal/auxiliary in MM as Li, A (2005) and Soh (2007) have assumed or argued. Instead, it is much lower than expected. As a copula, its position is contained within the regular modal/auxiliary (with possible negation):

(24) Wo (bu) [_{ModalP} neng (bu) [_{ν P} shi ta ma]]?
I (not) can (not) be him Q-particle
'Can (not) I (not) be him?'

As (24) indicates, the position of a copula in MM is below the regular modal/auxiliary *neng* and even below the negation if the sentence is negated (the negation can be either at the modalP level or at the ν P level as (24) indicates). This is in sharp contrast with Li, A (2005) and Soh's (2007) analysis that the position of *shi* in the *shi*-support construction is higher than a regular modal/auxiliary in MM.¹¹

7. Conclusion

In this paper, I have argued that *shi*-support in MM is not an instance of *do*-support as in English and the *shi*-support construction is not an instance of ν PE (contra Li, G. 2002, Xu 2003, Li, A. 2005, Soh, 2007). Instead, I have argued that the *shi*-support construction is an instance of deep anaphora in that it allows for pragmatics control and resists the missing antecedent phenomenon.

¹¹ The question remains why *shi* in *shi*-supported construction cannot be negated if it is just a regular copula. This might have something to do the pragmatic function of this peculiar sentence pattern. See Lin and Tang (1995) and Li, A (2005) for some reasonable discussions.

The closest translation of this construction into English is thus "...be also (of the same state)" with a possible DP *zheyang* ('this state') unpronounced (Section 3). *Shi* under this analysis is nothing more than a linking verb (copula) in the *shi*-support construction (Section 6).

References

- Ai, R.-X. Ressay. 2008. *Elliptical Predicate Constructions in Mandarin*. Muenchen: Lincom.
- Fiengo, Robert W. and Robert May. 1994. *Indices and Identity*, Cambridge, Mass.: The MIT Press.
- Hankamer, Jorge and Ivan A. Sag. 1976. "Deep and Surface Anaphora", *Linguistic Inquiry* 7: 391-426.
- Hornstein, Norbert. 1994. "An Argument for Minimalism: the Case of Antecedent Contained Deletion", *Linguistic Inquiry* 25: 455-480.
- Hornstein, Norbert. 1995. *Logical Form: from GB to Minimalism*, Cambridge, Mass.: Blackwell.
- Huang, C.-T. James. 1984. "On the Distribution and Reference of Empty Pronouns," *Linguistic Inquiry* 15.4: 531-574.
- Huang, C.-T. James. 1987. "Remarks on Empty Categories in Chinese," *Linguistic Inquiry* 18, 321-337.
- Huang, C.-T. James. 1988. 'On 'be' and 'have' in Chinese'. *The Bulletin of the Institute of History and Philology* Vol. LIX, Part I. Academica Sinica, Taipei.
- Huang, C.-T. James. 1998. *Logical Relations in Chinese and the Theory of Grammar*, New York: Garland Publishing, Inc.
- Larson, Richard and Robert May. 1990. "Antecedent Containment or Vacuous Movement: Reply to Baltin", *Linguistic Inquiry* 21: 103-122.
- Lasnik, Howard. 1999. "On Feature Strength: Three Minimalist Approaches to Overt Movement", *Linguistic Inquiry* 30: 197-217.
- Li, Charles N. and Sandra A. Thompson. 1989. *Mandarin Chinese: A Functional Reference Grammar*, University of California Press.
- Li, H.-J. Grace. 2002. *Ellipsis Constructions in Chinese*, doctoral dissertation, University of Southern California.
- Li, Y.-H. Audrey and Joseph Aoun. 2008. "Ellipsis and Missing Objects", in Robert Freidin, Carlos P. Otero and Maria Luisa Zubizarreta (eds.) *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud* (pp. 251-274). Cambridge: MIT Press.
- Li, Y.-H. Audrey. 2005. "Ellipsis and Missing Objects", *Linguistic Science* 15: 3-19.
- Lin, Jowang and Jane Tang. 1995. "Modals as Verbs in Chinese: a GB Perspective", *The Bulletin of the Institute of History and Philology* 66: 53-105.
- May, Robert. 1985. *Logical Form: Its Structure and Derivation*, Cambridge, MA.: The MIT Press.
- Sag, Ivan A. 1976. *Deletion and Logical Form*, doctoral dissertation, MIT.
- Soh, Hooi Ling. 2003. "Antecedent-Contained Deletion (ACD) Constructions in Mandarin Chinese," in *Proceedings of the North East Linguistic Society* 33: 129-144, GLSA, University of Massachusetts, Amherst.
- Soh, Hooi Ling. 2007. "Ellipsis. Last Resort and the Dummy Auxiliary *shi* 'be' in Mandarin Chinese", *Linguistic Inquiry* 38: 178-188.
- Tancredi, Christopher. 1992. *Deletion, Deaccenting and Presupposition*, doctoral dissertation, MIT.
- Xu, Lie-Jiong. 1986. "Free Empty Categories," *Linguistic Inquiry* 17.1: 75-93.
- Xu, Lie-Jiong. 2003. "Remarks on VP-ellipsis in Disguise", *Linguistic Inquiry*, 34: 163-171.