Towards a syntactic focus movement account of the sluicing-like construction in Chinese
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Sluicing is an elliptical construction in which a wh-phrase appears in the place where we expect a full clause. A standard analysis of sluicing is that it derives from overt wh-movement followed by deletion of TP, i.e. the PF-deletion account (e.g., Ross 1969; Merchant 2001; Lasnik 2001). However, the PF-deletion account may have difficulty in accounting for the apparent sluicing cases in wh-in-situ languages because wh-phrases in these languages normally do not undergo overt movement (e.g., Huang 1982). Chinese, a wh-in-situ language, has a sluicing-like construction (henceforth SLC) as in (1).[1]

(1)   Mouren   ganggang likai-le   – caicai **shi**   shei?
         somebody   just   leave-PERF   guess SHI who
         'Somebody just left – guess who?'

Following Wang & Wu (2006), I propose that SLC in Chinese should be analyzed as overt focus movement of a wh-phrase followed by deletion of TP. I show that strong evidence for this analysis comes from the fact that the distribution of the focus marker *shi* in SLC exactly parallels its distribution in wh-fronting constructions where wh-phrases undergo overt focus movement to the pre-subject position.

Wang (2002) noted that the distribution of *shi* in SLC displays an asymmetry between wh-phrases such as *shei* "who" and *shenme* "what" and wh-phrases such as *zai-nali* "where", *shenme-shihou* "when", and *wei-shenme* "why". While *shi* is obligatory before *shei* "who" and *shenme* "what" as in (2), *shi* is optional before *zai-nali* "where", *shenme-shihou* "when", and *wei-shenme* "why" as in (3).

(2)   a. Zhangsan zui   xinren   *mouren*$_i$,   dan   wo   bu   zhidao *(**shi**) *shei*$_i$.
            Zhangsan most   trust   someone   but   1SG   NEG   know   SHI   who
            'Zhangsan trusts someone most, but I don't know *who*.'
         b. Zhangsan tebie taoyan   *mouwu*$_i$,   dan   wo   bu   zhidao *(**shi**) *shenme*$_i$.
            Zhangsan very   dislike something   but   1SG   NEG   know   SHI   what
            'Zhangsan dislikes something very much, but I don't know *what*.'

(3)   a. Zhangsan he Lisi zai   *moudi*$_i$ xiangyu-le, dan wo bu   zhidao (**shi**) *zai-nali*$_i$.
            Zhangsan and Lisi PREP some.place meet-PERF but 1SG NEG know   SHI   where
            'Zhangsan and Lisi met in some place, but I don't know *where*.'
         b. Zhangsan zai   *moushi*$_i$ like-le   paidui, dan wo bu   zhidao (**shi**) *shenme-shihou*$_i$.
            Zhangsan PREP some.time leave-PERF party   but 1SG NEG know   SHI   when
            'Zhangsan left the party at some time, but I don't know *when*.'

Wang (2002) suggests that the asymmetry of the distribution of *shi* is between wh-arguments and wh-adjuncts. However, I show that argument-adjunct is not the right distinction because *shi* is also optional before the d-linked wh-argument in (4) and the (oblique) prepositional wh-argument in (5).

(4)   Zhangsan yudao-le   *mou-ge xuesheng*$_i$, dan wo bu   zhidao (**shi**) *na-ge   xuesheng*$_i$.
         Zhangsan meet-PERF some-CL student   but 1SG NEG know   SHI which-CL student
         'Zhangsan met some student, but I don't know *which student*.'

(5)   Zhangsan song-le   yi-ben shu *gei mouren*$_i$, dan wo bu   zhidao (**shi**) *gei shei*$_i$.
         Zhangsan give-PERF one-CL book to someone but 1SG NEG   know   SHI to whom
         'Zhangsan gave one book to someone, but I don't know *to whom*.'

I claim that the asymmetry of the distribution of *shi*, rather than being sensitive to the argument-adjunct distinction, is morphologically-driven. While *shi* is obligatory before simplex (i.e. mono-morphemic) wh-phrases such as *shei* "who" and *shenme* "what", *shi* is optional before composite (i.e. multi-

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[1] In this paper I treat the morpheme *shi* as a focus marker (e.g., Paris 1979; Huang 1982, 1984; Chiu 1993; Shi 1994; Lee 2005). I gloss *shi* as SHI. I use the abbreviation PERF for perfective, NEG for negative, and 1SG for first-person singular.

morphemic) wh-phrases such as *zai-nali* "where", *shenme-shihou* "when", *wei-shenme* "why", d-linked wh-arguments, and prepositional wh-phrases. Note that the wh-phrase *zenmeyang* "how" that interrogates the manner or method of the event is not allowed in SLC (cf. Adams 2004).

(6)　　　*Zhangsan yong *mou-zhong fangshi*$_i$ shasi-le　Lisi, dan wo bu　zhidao **shi** *zenmeyang*$_i$.
　　　　　Zhangsan use　some-CL　manner　kill-PERF Lisi　but 1SG NEG know　SHI how
　　　　　Intended ? 'Zhangsan killed Lisi in some manner, but I don't know how.'

　　Importantly, the asymmetry of the distribution of *shi* between simplex and composite wh-phrases in SLC exactly parallels that in wh-fronting constructions where wh-phrases undergo overt focus movement to the pre-subject position. Note that (7) – (11) are minimal pairs with (2) – (6). While *shi* is obligatory in (7), it is optional in (8) – (10). The wh-phrase *zenmeyang* "how" is also not allowed in wh-fronting constructions as in (11).

(7)　　　a. **Shi** *shei*$_i$, Zhangsan zui　xinren t_i?　b. **Shi** *shenme*$_i$, Zhangsan tebie taoyan t_i?
　　　　　SHI who　Zhangsan most trust　　　　　　SHI what　　Zhangsan very　dislike
　　　　　'Who is it that Zhangsan trusts most?'　　　'What is it that Zhangsan dislikes very much?'

(8)　　　a. (**Shi**) *zai-nali*$_i$, Zhangsan he　Lisi　t_i　xiangyu-le?
　　　　　SHI　　where　　Zhangsan and　Lisi　　meet-PERF
　　　　　'Where was it that Zhangsan and Lisi met?'

　　　　　b. (**Shi**) *shenme-shihou*$_i$, Zhangsan t_i　likai-le　　paidui?
　　　　　SHI　　when　　　　　Zhangsan　　leave-PERF　party
　　　　　'When was it that Zhangsan left the party?'

(9)　　　(**Shi**) *na-ge*　　*xuesheng*$_i$, Zhangsan yudao-le　　t_i?
　　　　　SHI　　which-CL　student　　Zhangsan　meet-PERF
　　　　　'Which student was it that Zhangsan met?'

(10)　　(**Shi**) *gei shei*$_i$, Zhangsan song-le　　yi-ben　shu　t_i?
　　　　　SHI　　to　whom Zhangsan　give-PERF　one-CL　book
　　　　　'To whom was it that Zhangsan gave a book?'

(11)　　*Shi** *zenmeyang*$_i$, Zhangsan t_i　shasi-le　　Lisi?
　　　　　SHI　how　　　　Zhangsan　　kill-PERF　Lisi
　　　　　Intended ? 'How was it that Zhangsan killed Lisi?'

The consistency of the asymmetry of the distribution of *shi* between simplex and composite wh-phrases in SLC and wh-fronting constructions strongly supports the analysis that SLC in Chinese, like sluicing in English, derives from overt movement followed by TP-deletion. That is, Chinese exhibits genuine sluicing, which provides a plausible explanation for the commonalities such as pied-piping, strict/sloppy identity ambiguity, and island repair effects between SLC in Chinese and sluicing in wh-moving languages.

　　Specifically, I suggest that the focus marker *shi* in SLC is a spelled-out Focus head in the left periphery. Wh-phrases undergo overt focus movement to spec-FocP, and *shi* is raised to a higher functional projection, i.e. ShiP, to c-commond the wh-phrases and derive the surface word order.

(12)　　Zhangsan da-le　　*mouren*$_i$,
　　　　　Zhangsan hit-PERF　someone
　　　　　dan wo　bu　zhidao [$_{ShiP}$ **shi**$_i$ [$_{FocP}$ *shei*$_j$　t_i　[$_{TP}$ ~~Zhangsan　da-le　　t_j~~]]].
　　　　　but 1SG NEG know　　　SHI　　who　　　Zhangsan hit-PERF
　　　　　'Zhangsan hit *someone*$_j$, but I don't know [$_{CP}$ *who*$_j$ [$_{TP}$ ~~Zhangsan hit t_j~~]].'

Selected References [1] Adams, P. Wang. 2004. The structure of sluicing in Mandarin Chinese. In *Penn Working Papers in Linguistics* 10: 1-16. [2] Hiraiwa, K., & S. Ishihara. 2002. Missing Links: Cleft, sluicing, and "no da" construction in Japanese. In *MIT Working Papers in Linguistics* 43: 35-54. [3] Wang, C. 2002. On sluicing in Mandarin Chinese. MA Thesis, NTHU. [4] Wang, C., & H. Wu. 2006. Sluicing and focus movement in wh-in-situ languages. In *Penn Working Papers in Linguistics* 12: 375-387.