

Mandarin *even*, *all* and the Trigger of Focus Movement

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Focus constructions in many languages require overt fronting of the phrases that bear semantic focus to a designated position. This type of movement has been variously analyzed as driven by focus features (Bródy 1995), uninterpretable features (Horvath 2005), or prosodic constraints (Arregi 2001, Szendrői 2003, Koch 2008). This paper shows that focus constructions in Mandarin do not form a coherent class with regard to movement facts, and that a pure feature-driven syntactic account or prosodic alignment account cannot explain the behavior of focus-(non-)movement as a whole. We argue that movement in Mandarin focus constructions is required by a specific operator *dou*, which triggers both focus fronting as well as fronting of non-focused material in quantificational constructions.

We present data on Mandarin ‘even’ and ‘all’ constructions, which we analyze as involving A-bar movement to a preverbal position. This movement is long distance (1), and obeys island constraints (2). When the target is island internal, pied-piping occurs (3). The same adverbial quantifier *dou* is required in both ‘even’ and ‘all’ constructions, and attracts the focus to its specifier (4). Recent work on the semantics of *dou* indicates that these two uses can be collapsed (Shyu 1995, Wu 1999, Giannakidou and Cheng 2006). This supports the idea that the trigger of movement is identical in both cases. Further raising to a topic position is possible (5), and often preferred with ‘all’. However, we find that in general the target first moves to the specifier of *dou*.

In ‘even’ constructions, the fronted constituent is marked with the particle *lian*. Using pied-piping data, we show that contra Wu (1999) *lian* is not a focus marker, but rather an operator that takes a constituent containing focus as an argument, and contributes scalar meaning. The true “marker” of focus in Mandarin, as in English, is stress. However, we show that movement under *dou* can’t be stress-driven, since data with ‘only’ shows that a focus can receive stress in situ (6). Nevertheless, movement in ‘even’ constructions is crucially sensitive to PF constraints, similar to those Landau (2006, 2007) proposes to capture Hebrew partial VP fronting. We illustrate how these constraints give rise to a paradigm of verb doubling (7) and partial movement (8) in cases of V-focus and VP-focus.

Horvath (2005) shows that not all Hungarian focus constructions require focus fronting, and overt movement of the focus of ‘only’ (but not ‘even’) is triggered by [+EPP] on a head that probes for an exhaustivity identification operator. In Mandarin, the probing head *dou* attracts not only the focus of ‘even’ (marked by the operator *lian*), but also *wh*-indeterminate pronouns and plural DPs quantified over by ‘all’. We suggest that this movement is triggered by *dou* — a “maximality” head that probes for an operator with a matching [Max] feature. The operator associated with *wh*-indeterminate pronouns and plural DPs is null, with a semantics compatible with Giannakidou and Cheng (2006), while *lian* is an overt maximality operator contributing scalar semantics. “Focus movement” and *wh*-movement resemble each other in the sense that they are both A-bar movement triggered by a head that probes for matching operators (Q, EI, Max).

- (1) a. wǒ lián zhèi běn shū dōu bù zhīdào zhāngsān huì bù huì xǐhuan ____
 1SG LIAN this CL book DOU not know Zhangsan will not will like
 ‘I don’t even know if Zhangsan will like [this book]F’
- b. wǒ shéi dōu bù xiǎng ràng lǐsì dézuì ____
 1SG who DOU not want have Lisi offend
 ‘I don’t want Lisi to offend anyone’
- (2) a. *nǐ lián lǚ xùn_i dōu bù xiǎng kàn [(tā_i) xiě de shū]
 2SG LIAN Lu Xun DOU not want read 3SG write DE book
 Intended: ‘You don’t even want to read the books [Lu Xun]F writes’
- b. *nǐ lǚ xùn_i dōu kàn guò [(tā_i) xiě de shū] le ba
 2SG Lu Xun DOU read ASP 3SG write DE book PRT PRT
 Intended: ‘I suppose you’ve read all of Lu Xun’s books’
- (3) a. nǐ lián lǚ xùn xiě de shū dōu bù xiǎng kàn ____
 2SG LIAN Lu Xun write DE book DOU not want read
 ‘You don’t even want to read the books [Lu Xun]F writes’
- b. nǐ lǚ xùn xiě de shū dōu kàn guò ____ le ba
 2SG Lu Xun write DE book DOU read ASP PRT PRT
 ‘I suppose you’ve read all of Lu Xun’s books’
- (4) [[lián [... XP_[+F] ...]] dōu [v ... < [lián [...XP_[+F]...]] > ...]_{VP}]
- (5) nèi sān běn shū wǒ ____ dōu méi kàn guò ____
 that three CL book 1SG DOU NEG read ASP
 ‘I haven’t read (any of) those three books’
- (6) wǒ zhǐ xǐhuān PÍNGGUǒ
 1SG only like apple
 ‘I only like [apples]F’
- (7) tā lián xiào dōu méi xiào
 3SG LIAN laugh DOU NEG laugh
 ‘She didn’t even [laugh]F’
- (8) tā lián tóufa dōu bù shū ____
 3SG LIAN hair DOU not brush
 ‘He doesn’t even [brush his hair]F’
 ‘He doesn’t even brush [his hair]F’
- (9) a. tāmen dōu lái le
 3PL DOU come PRT
 ‘They all came’
- b. shéi dōu lái le
 who DOU come PRT
 ‘Everyone came’

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