**dou (dis)harmony in Chinese**

This paper is concerned with the context sensitivity of the particle *dou* (roughly ‘all’), usually treated as a distributor/quantifier. This context sensitivity is also shown to have parallel effects with ‘only’ in Chinese and English.

**The problem.** It is a well-known fact that *dou* co-occurs with quantifiers in Chinese [1]. The standard analysis of this phenomenon (e.g. Lin 1998; Yang 2000) is to treat a quantifier NP as introducing a plurality, thus quantifiable by *dou*, an overt D-operator resembling English *all* or *each* of Dowty and Brodie 1984, Link 1987, and Schwarzschild 1991,1996 [2]. However, this analysis is insufficient to deal with the rarely discussed *dou*-disharmony phenomenon, the incompatibility of *dou* co-occurring with quantifiers such as *henshao* ‘few’ and *yixie* ‘some’ [3]. Presumably all the NPs involved here should be able to introduce a plurality and thus be quantifiable by *dou*, but they are not, in contrast to *many* [4]. Also, the non-compatible NPs are not weak NPs in the sense of Barwise and Cooper (1981) (proposed by Wu 1999) because both *few* and *many* are allowed in the existential structure [5] and both should be weak, if anything, nor are they DE NPs, since *yixie* ‘some’ doesn’t show set-subset relation [6].

**The proposal.** In this paper, I propose that *dou*, like *many/few*, is context dependent (Partee, 1988) and a proper account of [3] requires building in context sensitivity into the meaning of *dou*. In particular, I argue that *dou* is context dependent relative to one’s expectation. It is licensed only when the cardinality introduced by the quantifier NP, |X|, is bigger than n, whose value is context determined, such that X is big enough to be considered in a context as *many*. This presupposition can be encoded in the conjunct underlined in [7]. With this revision, the disharmony between *dou* and *few* in [3] for example results from a clash between the semantics of *few* and the presupposition of *dou* (shown in IP of [8], where Z is the maximal set of teachers who bought houses in the context). But this sort of conflict doesn’t arise in the *dou* harmony case such as *dou* and *many*, since it shows compatibility between the presupposition of *dou* and context dependency of *many* [9].

**Supporting evidence.** The claimed presupposition of *dou* is evidenced by its interaction with numerals or quantifiers. In either case, *dou* is licensed only when a numeral/number involved is understood to be satisfying or exceeding the speaker’s expectation n in a context. This explains the contrasts in [10b] with respect to the numbers 4, 6 and 10 and the infelicity of [11b] in the context of [11a].

**Dual of dou** In a sense, *dou* can be taken as a *many* modifier, which explains its harmony with a NP whose cardinality or proportion is big/high enough to be considered as *many* in a context. However, the fact that the two sets of NPs in [1] and [3] show consistent correlation with respect to *dou* quantification leads us to consider the possibility of a counterpart of *dou* that takes care of the set of NPs in [3]. I argue that *zhi you* ‘only’ is such a modifier that is used only when a number is considered as below one’s expectation. Given so, the above situations in [10] and [11] are reversed, as expected ([12], [13]).

**Further implications.** *dou*-disharmony leads us to the presuppositional aspect of *dou* ‘all’ and *zhiyou* ‘only’, along the dimension of speaker’s expectation. While *dou* seems to present a language particular property, the facts with *zhiyou* ‘only’ are replicated in English. Noted in von Fintel (1997), differences arise when *only* attaches to *every* and *some* [14]. Given the above analysis, we will show that there is a new way to address this open problem in the semantics of English *only*. 
[1] (women xi) da bufen/ hendo/meyi/ laoshi dou maile fangzi
our dept. big-CL/many/every teacher dou buy-ASP house
‘Most/many/every teacher(s) in our dept. bought their (his) house(s)’

[2] $dou = d\exists X \forall y \in \text{Cov} \ II \& y \subseteq X \rightarrow P(y)$, where $X$ is a plural variable

[3] * henshao de / * yixie laoshi dou maile fangzi
very-few DE/some teacher dou buy-ASP house
‘Very few/Some teachers bought their houses’

[4] $\exists X [X$ is many/few NP $\& \forall y \in \text{Cov} \ II \& y \subseteq X \rightarrow P(y)]$ many... dou ok; *few... dou

[5] you henshaode/henduode laoshi zai fangjian le
exist very few DE/many DE teacher at house inside
“There are very few/many teachers in the house”

‘Some teachers have houses’ $\neq$ ‘Some foreign teachers have houses’

[7] $dou = d\exists X \forall y \in \text{Cov} \ II \& y \subseteq X \rightarrow P(y)$ & $|X| \geq n$, where $n$ is context defined

[8] $\exists Z \exists X$ [teacher’(X) & $\forall Y$ (teacher’(Y) $\rightarrow Y \subseteq X$) & $Z \subseteq X$
& $\forall y \in \text{Cov} \ II \& y \subseteq Z \rightarrow buy’ (y, house’)$ & $|Z| \geq n$] & $|Z| \geq n$

References (selected)