On the ‘Numeral Classifier de Noun’ construction in Mandarin Chinese

**Introduction:** In Mandarin, a classifier is obligatory when the noun is modified by a numeral (Li & Thompson 1989). A classifier phrase can have the ‘associative marker’ *de* in it, but *de* is sensitive to whether the classifier is an individual or a measure classifier, as shown in (1). Some researchers generalize that *de* can only co-occur with measure classifiers (Chao 1968, Cheng & Sybesma (C&S) 1998), but more recent works (Tang 2005, Hsieh 2008) show that individual classifiers can also co-occur with *de*, at least with certain numerals (compare (1a) with (2)). There is disagreement as to whether *de* causes any structural difference. Hsieh (2008) and Watanabe (2006) posit that classifier phrases with and without *de* share the same structure, while C&S (1998) and Tang (2005) argue that classifier phrases without *de* have a head-complement structure and those with *de* have a modificational structure. This paper fleshes out the modificational structure of ‘Numeral Classifier de Noun’ proposed in Tang (2005), and provides data to show that C&S’s (1998) relative clause analysis makes incorrect predictions.

(1) a. * yi zhi individual de bi b. yi bei measure de shui
one CL associative pen one glass associative water

(2) san bai zhi individual de bi
three hundred CL associative pen
three hundred pens

**Proposal:** I follow Tang (2005) and C&S (1998) in assuming the modificational structure of ‘Numeral Classifier de Noun’, and posit the tree in (3a). The associative marker *de* projects a functional head indicating phrasal modification, like *de* in adjectives and possessives. The Classifier Phrase contains a null complement, i.e. *pro*, which is co-indexed with the noun. The numeral is in the spec position of the CIP.

(3) a.  b. (Cheng & Sybesma 1998 p. 10)

This differs from C&S’s (1998) clausal modification. C&S proposed that *tang* ‘soup’ and *wu wan* ‘five bowl’ forms a nominal small clause (NC), which can be relativized as in (3b). I will show that the relative clause analysis is not justified when compared to other relative clauses in Mandarin.

**Argument:** Example (4a) shows that the interrogative word *duoshao* ‘how many’ cannot appear inside a relative clause. Assume C&S is right, we would expect the substitution of the numeral with the interrogative word in ‘Numeral Classifier de Noun’ be ungrammatical. However, as shown in (4b), the interrogative word *duoshao* ‘how many’ doesn’t cause ungrammaticality.

(4) a. *ta jian-le na wei [[jiao duoshao ge xuesheng] de laoshi]?
he meet-past that Cl teach how-many Cl student C teacher
b. ta he-le [[duoshao wan] de tang]?
he drink-past how-many bowl C soup

He met the teacher who teaches how many students? How many bowls of soup did he drink?

There might be several explanations for the ungrammaticality of (4a). In the spirit of Huang, Li, Li (2009), the ungrammaticality of (4a) can be analyzed as due to a relative operator at the left peripheral of the relative clause intervening between the linking of the interrogative phrase to the question operator at the peripheral of the matrix clause. The grammaticality of (4b) thus can be accounted for as lacking a relative operator, which is either against C&S’s operator analysis or their relative clause analysis. I will show that their analysis also runs into trouble when accounting for the complex NP constraint that is observed in Mandarin relative clauses.

**Conclusion:** I have provided data to show that the relative clause analysis made incorrect predictions. The alternative structure I propose, which analyzes ‘Numeral Classifier de’ as a phrasal modifier of the ‘Noun’ overcomes the shortcomings of clausal modification.
References


