

The syntactic properties of group classifiers and individual classifiers in Mandarin

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INTRODUCTION: To refer to a specific quantity of an entity, Mandarin requires a classifier between the numeral and the noun. A group classifier, such as *qun*, is used for counting groups of entities (e.g., *san qun xuesheng* 'three groups of students'), while an individual classifier, such as *ge*, is used for counting atomic entities (e.g., *san ge xuesheng* 'three students'). However, when other elements are also present in the noun phrase, such as the plural marker *-men* or the modifying marker *de* which links modifiers and head nouns, the two types of classifiers have different distributions. In particular, a group classifier is compatible with *-men* (1), whereas an individual classifier is not; and a group classifier can be immediately followed by *de* (2), whereas an individual classifier cannot.

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|-------|---|----------------------|--------------------------------|---|---|
| (1) | CL+ plural marker <i>-men</i> | (2) | CL+ modifying marker <i>de</i> | | |
| san | qun/(<i>*ge</i>) | xuesheng- men | san qun/(<i>*ge</i>) | de | xuesheng |
| three | CL _{group} /CL _{individual} | student-PL | three | CL _{group} /CL _{individual} | DE student |
| | 'three groups of students/ <i>*three students</i> ' | | | | 'three groups of students/ <i>*three students</i> ' |

PROPOSAL: In the underlying structures, both types of classifiers belong to the same syntactic category, Div(ision), because they have the same interpretative function. However, they differ in their feature specifications: Group classifiers have the feature [GROUP], while individual classifiers have the feature [ATOMIC]. As a consequence of their different featural make-ups, these two types of classifiers select different complements, and this accounts for their (in-)compatibility with the plural marker *-men* and the modifying marker *de*.

THE UNDERLYING STRUCTURES: To account for the fact that group and individual classifiers occur between the numeral and the noun, I assume Borer's (2005) structure for noun phrases in classifier languages:

- (3) [DP (definite) [_{#P} numeral [_{DivP} classifier [_{NP} N]]]]

Following Borer (2005), I assume that classifiers are based-generated in Div, which is the locus of linguistic objects that perform the function of individuation.

GROUP CLASSIFIER + *-men*: To account for the compatibility of a group classifier and *-men*, I develop an analysis based on Massam's (2009) modification of the structure in (3). Massam proposes that there is optionally an additional category between Div and N, which is a Coll(ective) Phrase, and that plural markers can Merge in the head of CollP:

- (4) [DP (definite) [_{#P} numeral [_{DivP} classifier [_{CollP} plural marker [_{NP} N]]]]]

I argue that the Mandarin plural marker *-men* is Coll, and that it has an uninterpretable [GROUP] feature. The contrast in (1) is due to the fact that group classifiers have an interpretable [GROUP] feature but individual classifiers do not. This interpretable [GROUP] feature is compatible with a CollP complement with an uninterpretable [GROUP] feature on its head: *-men* is exactly this type of Coll. The incompatibility of *-men* and individual classifiers is attributed to the fact that the latter has the feature [ATOMIC], and hence cannot check *-men*'s uninterpretable [GROUP] feature.

GROUP CLASSIFIER + *de*: To account for the incompatibility of an individual classifier and *de*, I propose that *de*, like *-men*, is a Coll head, and is only selected by group classifiers with the interpretable feature [GROUP]. This straightforwardly captures the fact that *de* is incompatible with *-men*. The incompatibility of *de* and individual classifiers is attributed to the fact that the latter has the feature [ATOMIC], which cannot check uninterpretable features on Collective heads.

SIGNIFICANCE: This proposal provides a synthesis of different analyses that have each approached, but never quite achieved, a complete account of how different Mandarin classifiers are fundamentally constructed and interact with other projections. In doing so, it advances our understanding of the relationship between classifiers and other elements in the same nominal structures.

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