

An intermediate stage of spec-to-head reanalysis: evidence from Mandarin and Cantonese
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Introduction: *Yi* ‘one’ in Mandarin has been suggested to have grammaticalized from a numeral to an indefinite article (Chen 2003), but no syntactic analysis of the grammaticalization process has been provided. This paper will go beyond previous analyses, by proposing that: **1)** the grammaticalization of *yi* is an ongoing process and *yi* is ambiguous between a numeral and an indefinite article; **2)** the grammaticalization of Mandarin *yi* is an instantiation of a well-known phenomenon: specifier-to-head reanalysis (e.g., van Geldern 2001, 2004); **3)** there is an intermediate stage of grammaticalization: a numeral ‘one’ starts as a specifier of a phrase; then, it adjoins to a head before it is reanalyzed as an independent head projecting a separate phrase.

Ambiguity of *yi*: Following Chen (2003), I argue that *yi* has grammaticalized from a numeral to an indefinite article and that *yi* is ambiguous between a numeral and an indefinite article. The ambiguity analysis can cover a range of observations. First, numeral expressions with *yi* ‘one’ in Mandarin can be interpreted as indefinite specific or non-specific, while numeral expressions with other numerals are usually interpreted only as indefinite non-specific (e.g., Huang 1987, Tsai 2001). For example, numeral expressions except those with *yi* do not appear in subject/topic positions (1), since these positions in Mandarin do not allow non-specific readings (e.g., Chao 1968; A. Li 1996). I argue that *yi* in (1b) is an indefinite article, not a numeral, which leads to the acceptability of (1b).

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| 1. a. ??san-ge xuesheng chi-le dangao.
three-Cl student eat-PAST cake
‘Three students ate the cake.’ (Huang et al. 2009) | b. yi-ge xuesheng chi-le dangao.
a-Cl student eat-PAST cake
‘A student ate the cake.’ |
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Second, when *yi*-Cl-N phrases stay under the scope of negation, a ‘not any’ interpretation may emerge (2). I argue that with the ‘not any’ interpretation, *yi* in (2) is an indefinite article, not a numeral. Similar patterns are found in English (3). (Additional arguments will also be given below.)

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| 2. Xiaohong congmei jiao-guo yi-ge nanpengyou.
Xiaohong never make-EXP a-Cl boy.friend
‘Xiaohong has never had any boyfriend.’ | 3. Mary has never had a/*one boyfriend.
‘Mary has never had any boyfriend.’ |
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Specifier-to-head reanalysis: Regarding the structural reanalysis, I argue that numerals are located in Spec, CIP (4a) (cf. Tang 1990), and that the article *yi* ‘one’ has been reanalyzed as a separate head projecting a Quantifier Phrase (QP) (4b). The ‘spec-to-head’ reanalysis has been proposed for many elements within CP and DP (e.g., van Geldern 2001, 2004; Willis 2007).

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| 4. a. [_{CIP} san [_{Cl} -ben [_{NP} shu]
three Cl book | b. [_{QP} [_Q yi [_{CIP} [_{Cl} -ben [_{NP} shu]
a Cl book |
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As in (4), a numeral is in Spec, CIP, so its existence is determined by the presence of a classifier; in contrast, the existence of an indefinite article is not dependent on the presence of a classifier. Then an indefinite article *yi* may combine with a noun without a classifier. This is borne out (5).

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| 5. a. yi nanhai
a boy | b. san-*(ge) nanhai
three-CL boy |
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Furthermore, the article analysis of *yi* in *yi*-N phrases (e.g., (5a)) is supported by the observation that *yi*-N phrases cannot be used as answers for ‘how many’ questions (6). If *yi* in *yi*-N is an indefinite article, not a numeral, the unacceptability of *yi*-N in (6) is expected. Similar patterns are found in English (7). (Note that although Chen (2003) suggests that *yi* in *yi*-N phrases may be an indefinite article, no specific arguments to this effect are given in the paper.)

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| 6. <i>Question:</i> ni chi-le duoshao pingguo?
‘How many apples did you eat?’ | <i>Answer:</i> wo chi-le yi-*(ge) pingguo.
I eat-PAST one-Cl apple |
| 7. <i>Question:</i> How many apples did you eat? | <i>Answer:</i> I ate one/*an apple. |

