Discourse Induces Semantic Change: Evidence from a Numeral Phrase Construction in Chinese

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This paper provides evidence that grammaticalization correlates with low discourse prominence (*e.g.* Boye & Harder, 2012), by describing and proposing an explanation of a semantic change process, witnessed in a (hitherto unstudied) Chinese referring expression (henceforth *da*-NumP). A canonical NumP has the form of [Num Classifier NP] (Li & Thompson, 1981). In comparison, the *da*-NumP has the form of [Num *da* NP], where a morpheme *da* intervenes between the numeral and the NP. I am concerned with the diachronic meaning change of the *da*-NumP. I looked into data in the Peking University Center for Chinese Linguistics (CCL) Historical Chinese corpora and identified three types of systematic uses of the *da*-NumP. Examples (1-3) illustrate the three uses, based on the chronological order in which the first attested examples of each use arise. I cross-checked with CCL's contemporary Chinese corpora and (Chinese-language) Google and confirmed that the current (and very productive) uses fall within the patterns in (1-3).

(1) [Late Old Chinese, First attested ca. 6 AD]

a. (Context: Referring to the ten most severe, punishable by death sins <u>out of all the sins</u>, according to a Buddhist classic)
 Shi da   zui
 Ten DA sin
 '(Roughly) The Ten Big Sins'

b. (Context: Referring to the four most politically powerful tribes <u>out of all the tribes</u> within a kingdom)
 Si   da zu
 Four DA tribe
 '(Roughly) The Four Big Tribes'

(2) [Middle Chinese, First attested ca.600 AD]

(Context: Referring to the three greatest Buddhist temples voted by the public, <u>out of all the temples</u> in the city of Luoyang)
 Luoyang san   da   ming-si
 Luoyang three DA   elite-temple
 '(Roughly) The Three Famous Temples'

(3) [Modern Chinese, First attested ca. 19th century]

a. (Context: The speaker was introduced to four new friends. Noticing they were all pretty brawny, he called them the following)
 Si   da zhuang-han
 Four DA muscular-guy
 '(Roughly) The Four Muscular Guys'

b. (Context: The speaker has in mind certain entities that are not in the discourse, and utters the following to introduce them into the discourse, and mention its referents afterwards)
 Jiaru ben-hui   xuyao san   da yao-su: Shouxian... Qici....
 Join our-society need   three DA key-condition: First............Then...
 '(Roughly) Three necessary conditions are needed to join our society: the first is...the second is....'

Outside of the construction, *da* is an adjectival modifier denoting bigness. It also denotes certain outstanding properties. The ability to refer to outstanding properties clearly relates to the ranking reading in (1) (Grano & Kennedy, 2012): given the form [Num *da* NP], NP denotes a background set of entities (*i.e.* the domain of entities that are quantified over by the numeral) that are ranked via a context-appropriate scale (*e.g.* the graveness scale of sins). *Da* picks out the top ||Num|| number of salient entities on the scale (*e.g.* four largest sins). (2) retains the top ||Num|| ranking reading, as *da* still picks out the top three most outstanding temples out of a background set of temples. The examples in (3), however, are non-ranking, as the ||Num|| referents are the only individuals in the context that saliently exhibit the property described by NP.

   I propose that these uses form a path of semantic bleaching, accompanied by the change in the

relative level of discourse prominence within the expression. I assume that in all utterances, the parts conveying the prioritized message receive primary discourse prominence, and the parts conveying background messages are less prominent (Bundesen, 1990; Sperber & Wilson, 1995; Talmy, 2007; Langacker, 2008). In example (1), [Num *da*] is primary, since it functions to pick out the top-ranked entities. The NP hosts the background set and receives secondary prominence. Hence,

(4)   a) [Num *da*] is primary in discourse prominence;
        b) NP is secondary

In (2), the ranking reading is retained. However, rather than describing the background set, the NP in (2) exclusively characterizes the top-ranked entities, by assigning a discourse-new property to them (here *ming-si* '**elite** temple'). I propose that, at (2)'s stage, the *da*-NumP encodes a dynamic process, where, in the prior information state, the salient top-ranked entities are picked out/introduced into the discourse, then a new information state replaces the prior state and updates the discourse structure with new information on these entities (Lascarides & Asher, 1991; Asher & Lascarides, 1995). Accordingly, the discourse configuration is reshuffled:

(5)   a) The update process (hosted by the NP) becomes primary in prominence;
        b) The ranking process becomes secondary;
        c) The previously secondary background set becomes further demoted (since the
           update process doesn't access it and only operates on the salient entities).

This causes the background set to be *ousted* (Traugott 1988; Boye and Harder 2012) from surface realization, which I believe ultimately leads to the total loss of its semantic substance: because the background set is not overtly realized, and only the salient entities that are *the outcome* of the ranking process feeds into the characterizing process, ultimately the semantic content of the background set is lost. I believe that this explains the development of non-ranking uses in (3). In (3a), *da* marks any ‖Num‖ entities that are salient from discourse. In (3b), *da* marks the ‖Num‖ referents that are to be introduced into discourse and will be relevant for discussion in the subsequent discourse. In both cases, I believe that *da*'s function is then reanalyzed as *simply* highlighting ‖Num‖ discourse-salient entities accessible from contexts, which enables a discourse-new property to characterizes these entities.

Thus, this case study offers new insights into the functionalist explanations of semantic bleaching (Givon, 1979; Hopper, 1991; Hopper & Traugott, 2003), by providing a detailed account of how the grammar-discourse inter-dependence leads to structural and functional change of a morpheme. It also supports the view that the loss of a certain linguistic unit's semantic substance should not be understood in isolation, but in terms of the lowering of its prominence status relative to other materials in the environment.

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