Form and Function: Mandarin *de* in the Nominal and Verbal Domains

In generative linguistics, there is a default assumption that unless there is compelling evidence to the contrary, a single form maps to a single function. While this view is complicated by variation and performance, it is generally assumed that for every form there is a single prototypical function. Certain exceptional challenges to this position stand out – for example English participials and other putative cases of polysemy – and vigorous inquiry has sprung up around them. The present study focuses on Mandarin *de*, a famous example of a *linker* – a piece of morphology involved in seemingly disparate types of modification in both nominal and (as discussed here) in verbal domains. Specifically, we begin with the assumption that the nominal linker *de* and its 'counterpart(s)' in the verbal domain are not two (or even three) separate homophonous morphemes, nor are they a single polysemous morpheme; rather they spell out a version of Truswell (2004) and Belk's (2016) semantic operator JOIN, responsible for type-shifting modifiers to be appropriately attributive.

Mandarin has possibly three putatively homophonous linkers *de* which appear in the nominal domain between posessors, adjectives, PP's and RC's (1a), and in the verbal domain between adverbs and verbs (in that order or inverted: (1b)), or between verbs and resultative complements (1c) or between adjectives and modifying adverbials / clauses (1d). The literature has resisted treating these different types of linkers as the same object possibly because they are written with three different characters, or because of the wide array of environments it appears in, or possibly because of their diverging etymologies. Paul (2015) for example, cites the latter two arguments in his investigation of Mandarin nominal-linking *de* to exclude the verbal / adjectival *de* from her analysis, but provides no further discussion.

(1) a. (Zhangsan / ming tian / xinwen hou / wo xihuan kan) **de** dian shi ju
        Zhangsan / tomorrow / news   after / I   like   watch **de** television show
        'Zhangsan's / tomorrow's TV show / the TV show after the news / that I like to watch'
     b. (man man / zhe yang **de**) zuo (**de** bu cuo / hen man)
        (slowly   / this way **de**) do (**de** not bad / very slow)
        'Do things slowly / this way / well / slowly'
     c. shuo **de** bu neng zai   shuo
        say   **de** not can   again say
        'Talked until there's nothing left to say.'
     d. ben   **de** yao si
        dumb **de** must die
        'stupid to death'

Mandarin *de* in the nominal domain has been described as a case assigner, a generic 'linker', a 'particle' of unknown function, and many other things in the literature (see Li, 1985, Huang, Li, & Li, 2009 etc. for discussion). It has also been related to the Persian *Ezafe* phenomenon – a linker that appears between various modifiers and nominal elements which has likewise been called a case-assigner, a marker of modification, a phonologically-inserted vowel, or some other residue of syntactic operations (see Samiian, 1994; Karimi & Brame, 1986; Ghomeshi, 1997; Kahnemuyipour, 2014 *inter alia* for discussion). Larson (2009) equates *de* to a type of *Reverse Ezafe*, owing largely to its similar distribution but mirrored position to the *Ezafe* construction in other Persian and Caspian languages, importantly arguing that it is a case-assigner. In drawing this comparison with Persian (Larson, 2009) or in treating *de* as three disparate lexical items (Paul, 2015), important facts about the language are missed, namely the common base of attributivity of all discussed modifiers.

A lively research programme is being undertaken, primarily in the Distributed Morphology literature, of hunting down 'morphemes': pieces of morphology with putatively disparate, unrelated semantics or syntactic origins – essentially cases of one-to-many form-to-function relations (see Bermúdez-Otero & Luís (2016), Trommer (2016) or Cowper, Bjorkman & Siddiqi (2017) for discussion). The present study takes the null hypothesis that the *de* in the nominal and verbal domains are one and the same, and aims to determine if any common ground can be established between the two. Following Gouguet (2006) who demonstrates verb raising to the phase edge for resultative and post-verbal modification structures in Mandarin, we can abstract away from word order differences in (1b) & (1c) above and arrive at a consistent base-generated structure for modification in both the verbal and nominal domains. Given this, we establish attributive semantics for modification of predicates of both entities and events, and propose a version of Truswell's (2004) JOIN operator which is uniformly spelled out by *de* in Mandarin. In doing so it may be possible to eliminate another morpheme, and to provide deeper insights into the syntax and semantics of modification both in the nominal and verbal domains.

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