Locus of the exhaustiveness reading in Chinese cleft sentences

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Chinese features two minimally contrasting focus-marking construction types that have traditionally been analyzed as cleft sentences, illustrated by (1):

(1) a. Xiaozhang shi zai zaofan yihou chakan youjian.  
   Xiaozhang be at breakfast after check email.  
   ‘It’s after breakfast that Xiaozhang checks email.’

(1b) involves a sentence-final particle –de (hereafter de-clefts), in contrast to (1a) (hereafter bare clefts). It has been proposed (Paul & Whitman 2008; Hole 2011) that these two constructions map nicely to identificational focus and information focus, respectively, in the sense of É. Kiss (1998). Specifically, –de is characterized as a proposition-level (à la Velleman et al. 2012) or an event-level exhaustifier (à la Hole 2012) that maximally address the question under discussion and triggers a truth-functional exhaustivity inference. (1b) thus addresses the QUD: when does Xiaozhang check email? by identifying (the time) after breakfast as the only time amongst contextually-accessible alternatives that fulfills the predicate of checking email.

An alternative analysis subsumes the SFP –de under other independently motivated meanings, as a tense-aspect operator (Huang 1982) or alternatively a speaker-oriented utterance modifier (Cheng 2008). The locus of exhaustivity has to be found elsewhere. The two opposing analyses crucially come down to whether de-clefts and bare clefts differ w.r.t. the exhaustive inference: The exhaustifier analysis predicts de-clefts’ exhaustivity is significantly stronger, whereas the non-exhaustifier analysis predicts there is no significant distinction. The current work conducts an acceptability judgment task comparing the two cleft constructions’ exhaustivity patterns. Contrary to Paul & Whitman (2008) and Hole (2012)’s informal elicitation results, our experimental investigation finds no significant difference in acceptability, lending support to the latter, non-exhaustifier analysis.

22 participants (Mandarin speakers; on average 28.3-year-old; college educated; residing in China) are recruited to rate online Qualtrics sentences on a 1-7 Likert scale (ascending, least natural to most natural). Target sentences fall into two groups. Group 1 sentences (the NP group) have an argumental NP cleft phrase (focus). Group 2 sentences (the PP group) have an adjunct PP cleft phrase. Each individual rates 36 target sentences and 36 filler sentences per group (all stimuli items contextualized and randomized using Linger). In both groups, four conditions are formed: 1. a de-cleft condition; 2. a bare cleft condition; 3. an only-exclusive condition and 4. a plain focus construction (as control). All conditions are followed by a continuation sentences with a ye ‘too’ particle, in following with the paradigm in Liu & Yang (2017). The additive too-particle introduces an additional individual (alternative to the referent of the cleft phrase) into the extension of the sentence predicate, violating the exhaustive interpretation that all alternatives are excluded under the current discourse. This way, we can probe the strength of the exhaustive inference of a given construction by correlating lower ratings for the target + continuation combination with stronger exhaustive inference on the part of participants. Additionally, all target sentences (across conditions) are preceded by a content question as context, so as to make sure that target sentences encode focus by addressing a prior QUD (e.g. excludes a continuous-topic reading of clefts as observed by den Dikken 2012, or the cleft’s corrective reading as observed by Liu to appear). The experimental design of our target
sentences is schematized as follows (subscripts stand for condition number):

\[(2) \quad \text{(PP-focus) Topic BE}_{1,2}/\text{ONLY}_2/\emptyset_4 \text{ PP VP (DE)}_4]. \quad \text{PP NP too VP.}
\]

\[(3) \quad \text{(NP-focus) BE}_{1,2}/\text{ONLY}_2/\emptyset_4 \text{ NP VP (DE)}_4]. \quad \text{NP too VP.}
\]

(3) provides a PP-adjunct cleft target sentence, with a continuation and a context question:

\[\text{When does Xiao Zhang check his email?} \]

\[\text{Xiao Zhang is at breakfast after checking his email, he is at meeting before too check email.} \]

\[\text{It is after breakfast that Xiao Zhang checks his email. Before meeting, too, Xiao Zhang checks his email.}\]

In both the NP and the PP group, paired t-tests conducted (after calculating mean rating values, cf. Figure 1 and 2) reveal no significant difference between the de-cleft condition and the bare cleft condition (cf. Table 1 and 2). Furthermore, both the de-cleft and the bare cleft condition are significantly different from the only condition on one hand and different from the control condition (plain focus construction) on the other hand.

Our results showed that the presence and absence of the sentence-final –de particle do not correlate with the exhaustivity strength in Chinese cleft construction types, and this non-correlation obtains regardless of the syntactic roles of the cleft phrase (in view of suggestions in Hole 2011 that the differences in cleft exhaustivity are more robust for PP focus than NP focus). At the same time, we replicated the finding by Liu & Yang (2017) that Chinese clefts receive consistently lower exhaustive inferences than only-sentences, confirming the near-consensual view that cleft exhaustivity does not pertain to the at-issue semantic level. While our findings do not pinpoint de-particle’s meaning contribution, in our design target sentences were consistently anchored to non-past tense, favoring the analysis of –de as expressing speaker-oriented meanings (e.g. Cheng 2008) rather than tense-aspect marking (Huang 1982).