

# Syntactic Partitioning in (South) East Asian: A cross-linguistic comparison of clefting in Japanese, Burmese and Chinese\*

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## Abstract

The article presents the first comparative overview and analysis of clefting and related focusing strategies involving clauses with nominalizers in three (South) East Asian languages: Japanese, Burmese, and Mandarin Chinese. The three languages exhibit parametric variation as to whether focusing requires the overt partitioning into a focused cleft constituent and a background clause with a nominalizer (Mandarin) or not (Japanese, Burmese). A major finding is that syntactic partitioning is brought about in two different ways in the languages under discussion: Base-generated clefts (Japanese, Burmese) vs. movement clefts (Japanese, Mandarin). Semantically, cleft structures come with an exhaustive interpretation in all three languages. We hypothesize that, crosslinguistically, syntactic partitioning is a necessary, though not a sufficient condition for exhaustiveness effects with focus.

Keywords: cleft, exhaustiveness, partitioning, *shi...de*-cleft, nominalizer, East Asian, South East Asian, Mandarin Chinese, Burmese, Japanese

## 1. Introduction

The article presents a first comparative overview and analysis of the syntax and semantics of clefting and focusing strategies in three (South) East Asian languages: Japanese, Burmese, and Mandarin Chinese.<sup>1</sup> The three languages exhibit typological variation in syntax (word order: SVO vs. SOV), phonology (tonal languages vs. pitch-accent languages), and morphological type (agglutinating vs. isolating), but they all feature clefting and related focusing strategies that involve backgrounded clauses headed by a nominalizing element. This is illustrated in (1) to (3).<sup>2</sup>

### (1) Clefts with nominalized clauses in Japanese and Burmese

- a. [Taroo-ga Pari-de katta **no-wa**] *tokee da.* [JAP<sup>3</sup>]  
Taro-NOM Paris-LOC bought NLZ-TOP watch COP  
'It was a watch that Taro bought in Paris.'/'What Taro bought in Paris was a watch.'
- b. [pol: *pe:ris-hma. wekhe.-ta*] *naji-ta-loun: hpji' te.* [MYA]  
Paul Paris-LOC bought-NLZ clock-one-CL COP RLS  
'It was a watch that Paul bought in Paris.'/'What Paul bought in Paris was a watch.'

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<sup>1</sup> Unless indicated otherwise, data are from elicitations carried out in the project A5 'Focus marking, focus interpretation, and focus use from a cross-linguistic perspective' within the collaborative research center SFB 632 "Information Structure".

<sup>2</sup> The following abbreviations in glosses are used: CL – classifier; COMP – complementizer; COP – copula; IRR – irrealis; LOC – locative; NEG – negation; NLZ – nominalizer; NOM – nominative; OBJ – object marker; POL – politeness; PRF – perfective; PROG – progressive; Q – question particle; RLS – realis; TOP – topic marker.

<sup>3</sup> For abbreviated language names, the ISO 639-3 conventions are used throughout: 'MYA' for Burmese/Myanmar, 'JAP' for Japanese, and 'CMN' for Mandarin Chinese.

- (2) In-situ *focusing structures with nominalized clauses in Japanese and Burmese*
- a. [Taroo-ga Pari-de tokee(-o) katta no] (da). [JAP]  
 Taro-NOM Paris-LOC watch-ACC bought NLZ COP  
 ‘Taro bought a watch in Paris.’
- b. [pol: naji-ta-loun:-kou we nei ta]. [MYA]  
 Paul clock-one-CL-OBJ buy PROG NLZ  
 ‘Paul is buying a watch.’
- (3) *Clefts with nominalizers in Mandarin Chinese* [CMN]  
 [Shì Zhāngsān mǎi biǎo de].  
 COP Zhangsan buy watch NLZ  
 ‘It is Zhangsan who bought a watch.’

Our central objective in this article is to show that the clefting and focusing strategies in (1) to (3) show considerable differences, which are somewhat obscured by their surface similarities, and in particular by the presence of a nominalizing element heading a (nominalized) clause.<sup>4</sup> We argue that the three strategies exhibit variation along two dimensions: The first dimension concerns the question of whether focusing involving a nominalizer induces the syntactic partitioning into a focus part and a background part, as in (1) and arguably (3), or not, as in (2). The second concerns the question of whether or not the focus constituent in constructions involving a nominalizer *must* receive an exhaustive interpretation. We show that Japanese (pitch accent, SOV, agglutinating, +case) patterns with Burmese (tonal, SOV, agglutinating, weakly grammaticalized case/discourse role markers) in that both languages feature partition structures next to non-partition structures, cf. (1) vs. (2). In Mandarin Chinese (tonal, mainly SVO, isolating, -case), by contrast, focus in clauses always induces a partitioning into focus and background in the overt or covert syntax. The data discussed show that, cross-linguistically, syntactic partitioning can be brought about in various ways. In the languages under discussion we find base-generated clefts (Japanese, Burmese), movement clefts (Japanese, Chinese), and LF-clefting (with a residual class of clefts in Mandarin Chinese). As for the semantic interpretation, it is shown that syntactic partitioning structures (here: cleft structures) come with an exhaustive interpretation in all three languages. Based on this finding, we hypothesize that syntactic partitioning is a necessary, though not a sufficient condition for exhaustiveness effects cross-linguistically.

A prominent feature of all three languages is the frequent use of clefting structures that are built around what is commonly referred to as *nominalizations* in the tradition of Matisoff (1972) or Lehmann (1982). Roughly, the term nominalization refers to predicates or clauses which acquire the distributional properties of nominals, or adnominal categories, by virtue of the presence of a functional element. For instance, the Mandarin Chinese nominalizer *de* yields nominal expressions when combined with a verbal category, as shown in (4).

- (4) a. zuótiān lái-de b. chī-de [CMN]  
 yesterday come-NLZ eat-NLZ  
 ‘the one who came yesterday’ ‘the thing eaten/(the one eating)’

Nominalizers are also frequently found in attributive constructions, where they are typically used to mark property-denoting expressions as adnominal modifiers. (5) presents Chinese

<sup>4</sup> We will not be concerned so much with the structural analysis of the cleft-constructions in (1ab) as clefts or pseudoclefts, respectively, and thus paraphrase them by means of *it*-clefts in what follows; see the discussion in §2.2 and 2.3, in which we adopt a pseudocleft analysis for the Japanese and Burmese clefts structures in (1ab).

examples with an adjective or stative verb (5a), and with a more complex relative clause attribute (5b), respectively.

- (5) a. *nǚlì-de xuéshēng*                      b. *zuótiān lái-de rén* [CMN]  
       hard.working-NLZ student                      yesterday come-NLZ person  
       ‘hard-working student’                              ‘the person who came yesterday’

The data in (4) and (5) are typical of Chinese, and the same holds for parallel structures in Japanese. The parallelism in structure and interpretation between (5b) and (4ab) supports an analysis that postulates an empty head noun  $\emptyset_N$  to be present in the structures in (4). This amounts to the claim that the particle *de* does not perform the nominalizing function by itself, but merely serves as forming adnominal attributes in both (4) and (5). For Burmese *ta* ‘NLZ’, the case is slightly different. Simpson (2008) has recently proposed that this element (and its irrealis counterpart *hma*) arose through a process of fusion between a Chinese-style attribute marker *te* (or *me* in the irrealis case) and a general head noun *ha* ‘thing/fact’; see also Okell (1969) for a first proposal along these lines. On this analysis, then, the label ‘NLZ’ in our Burmese glosses would relate to a different function than the one performed by Chinese *de*, or Japanese *no*. Nonetheless, we will use the same descriptive label ‘NLZ’ for these functional elements in Japanese, Burmese and Chinese, in keeping with the widespread use of this terminology in East and South East Asian linguistics. We feel justified in doing so for the following reasons: First, none of the nominalizing structures investigated here has an attributive use: Irrespective of whether or not an empty head element is present in these structures, the complete structures show an overall resemblance with saturated expressions of the nominal (DP) or clausal type (CP), and not with attributes. Second, Hole (2010) proposes for the case of Mandarin *de* that instances of this marker in syntactic clefts are followed by an empty head. This is as in Simpson’s (2008) analysis of nominalizers in Burmese, except that the fused specifying morpheme has phonetic content in Burmese.

The article is organized as follows: Section 2 discusses and analyzes the clefting and *in-situ* focus strategies in Japanese and Burmese, cf. (1), (2). Special attention is paid to the fact that Japanese has both base-generated and movement clefts (Hiraiwa and Ishihara 2002), where both types of Japanese clefts are interpreted exhaustively, same as their base-generated Burmese counterparts. Section 3 discusses and analyzes Mandarin *shì...de*-clefts, which also exhibit a nominalizing element, and which are interpreted exhaustively in spite of the seeming absence of a clear surface partition. In response to this finding, we adopt Hole’s (2010) analysis of *shì...de*-clefts as partitioning structures that are partly obscured by the application of a phonology-driven reordering process. Section 4 concludes.

## 2. Focusing and Clefting Strategies in Japanese and Burmese

### 2.1 Background Information on Japanese and Burmese

Japanese (isolate or Altaic) and Burmese/Myanmar (Sino-Tibetan/Southern Burmish) are spoken at quite some geographical distance, with Sinitic and other languages intervening, making the existence of direct contact phenomena highly implausible. Both languages are strictly OV and have agglutinative word formation, but, apart from that, the two languages differ in significant ways: Japanese has case-marking on DPs; as a pitch-accent language it only has some lexical tone features with low functional load; and it has a system of morphophonemics (consonant alternations) that is typical of Altaic languages. An example of an out-of-the-blue sentence with unmarked word order, which constitutes the basis for the focus variations to come, is given in (6).

- (6) *Taroo-ga Pari-de tokee(-o) katta.* [JAP]  
 Taro-NOM Paris-LOC watch-ACC bought  
 ‘Taro bought a watch in Paris.’

More generally, Japanese shares many traits with Korean in spite of its disputed genetic classification. It was also subject to strong and long-lasting (lexical) influence from China, which – as will be shown – had no direct impact on its focusing and clefting system.

Burmese/Myanmar was subject to strong (lexical) influence from the (Indoeuropean) Pali superstrate, and it has diglossia between literary and colloquial Burmese (our examples are drawn from the colloquial variety). In contrast to Japanese, it has no fully syntacticized case-marking system, but still makes abundant use of particles for marking arguments and adjuncts. Among those, some appear to indicate hybrid categories that simultaneously signal syntactic/semantic role as well as discourse status in ways yet to be determined in more detail. Two such particles occur in our examples, namely *ka.* and *kou,* cf. (7); see Soe (1999: 94–116) and Vittrant (2008) for discussion. We gloss them as topic and object markers (TOP/OBJ), respectively, well aware of the preliminary character of these generalizations that these terminological choices are based on. In addition, Burmese has four lexical tones plus a complex system of segmental and tone sandhi. An unmarked neutral sentence, which again forms the basis for the focus variations to come, is shown in (7).

- (7) *pol: naji-tq-loun:-kou pe:ris-hma wekhe.-te* [MYA]  
 Paul clock-one-CL-OBJ Paris-at bought-RLS  
 ‘Paul bought a watch in Paris.’

In the following sections, we first investigate focus clefts in Japanese (§2.2), which – as convincingly argued by Hiraiwa and Ishihara (2002) – come in two kinds, namely as base-generated pseudoclefts and as clefts derived by (focus) movement. It is also shown that either clefting strategy induces an exhaustive interpretation on the cleft constituent. We then turn to syntactic clefts in Burmese, the syntactic status of which as base-generated or movement clefts is more difficult to establish, but which also trigger exhaustiveness effects (§2.3). §2.4 turns to the *in-situ* counterparts with nominalized clauses, which show flexible association with focus and no exhaustiveness effects in either language. §2.5 concludes with a tentative generalization on the relationship between overt syntactic partitioning in form of focus clefting and exhaustiveness effects in the semantic interpretation.

## 2.2 Overt syntactic partitioning in Japanese

*2.2.1 Syntactic structure* Japanese has two ways of inducing an overt partition into focus and presupposition by means of cleft formation. Both cleft types allow for clefting of nominal constituents with various thematic roles (AG, TH, LOC, etc.), and their basic structure in terms of linear sequencing is as in (8). A topic-marked nominalized clause headed by the nominalizer *no,* which expresses the presupposed part of the utterance content, is followed by the cleft constituent in pre-copular position and the copula *da.* The same linearization pattern will be found in Burmese (but not in Mandarin Chinese); cf. §2.3.

- (8) *Basic structure of Japanese cleft sentences*  
 [nominalization clause NLZ-TOP] [cleft constituent<sub>DP/PP</sub>] COP

**presupposition                      cleft focus (phrase)<sup>5</sup>**

The first clefting strategy is illustrated in (9). Notice that the cleft constituent is invariably realized without overt case-marking no matter whether the cleft constituent corresponds to a subject, as in (9a), an object, as in (9b), or an adverbial, as in (9c).

- (9) a. [*Pari-de tokee-o katta no-wa*] *Taroo da.* [S]  
 Paris-LOC watch-ACC bought NLZ-TOP Taro COP  
 ‘It was Taro who bought a watch in Paris.’
- b. [*Taroo-ga Pari-de katta no-wa*] *tokee da.* [O]  
 Taro-NOM Paris-LOC bought NLZ-TOP watch COP  
 ‘It was a watch that Taro bought in Paris.’
- c. [*Taroo-ga tokee-o katta no-wa*] *Pari da.* [ADV]  
 Taro-NOM watch-ACC bought NLZ-TOP Paris COP  
 ‘It was in Paris that Taro bought a watch.’

As pointed out by Hiraiwa and Ishihara (2002), among others, there is a second clefting strategy, which is exemplified in (10ab) for OBJ- and ADJ-focus, respectively.

- (10) a. [*Taroo-ga Pari-de katta no-wa*] *tokee-o da.* [O]  
 Taro-NOM Paris-LOC bought NLZ-TOP watch-ACC COP  
 ‘It was a *watch* that Taro bought in Paris.’
- b. [*Taroo-ga tokee-o katta no-wa*] *Pari-de da.* [ADV]  
 Taro-NOM watch-ACC bought NLZ-TOP Paris-LOC COP  
 ‘It was in Paris that Taro bought a watch.’

Hiraiwa and Ishihara (2002) show that the two cleft variants differ in important ways that argue for two different underlying structures and derivational histories. Most strikingly, the cleft constituents in (10) show case, or postpositional, marking, which clearly marks them as arguments or adjuncts of the verbal predicate inside the nominalized clause. Second, the cleft variant in (11ab) with an overtly case-marked cleft constituent exhibits island sensitivity; cf. (11b). No such island sensitivity is observed for the cleft variant without overt case-marking on the cleft constituent; cf. (11a).

- (11) a. [*John-ga* [[*e<sub>i</sub> e<sub>j</sub> kaita*] *hito<sub>i</sub>*]-*o* *hiansita no*]-*wa kono-ronbun<sub>j</sub> da.*  
 John-NOM wrote person-ACC criticized NLZ-TOP this-paper COP  
 ‘(lit.) It is this paper<sub>j</sub> that John criticized the person who wrote e<sub>j</sub>.’
- b.\*[*John-ga* [[*e<sub>i</sub> e<sub>j</sub> kaita*] *hito<sub>i</sub>*]-*o* *hiansita no*]-*wa kono-ronbun-o<sub>j</sub> da.*  
 John-NOM wrote person-ACC criticized NLZ-TOP this-paper-ACC COP  
 ‘(int./lit.) It is this paper<sub>j</sub> that John criticized the person who wrote e<sub>j</sub>.’  
 Hiraiwa and Ishihara (2002: 37)

Based on these differences and others, Hiraiwa and Ishihara conclude, correctly we think, that the cleft variant with overt case-marking in (10) involves syntactic movement of the focus

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<sup>5</sup> The term *focus phrase* is used here and in the following as in Krifka (2006). The focus phrase in the clefted position can also contain non-focused material (e.g., adpositions). Since cleft focus phrases are islands for movement they constitute minimal focus-containing constituents that are pied-piped along by focus-related movement; or they are simply juxtaposed to background material in base-generated information-structural partitions.

constituent to its surface focus position from a base-generated position inside the nominalized clause. This movement analysis captures the observed island sensitivity, and it accounts for the fact that the cleft constituent surfaces with its original adpositional or case marking, which marks it as an argument or adjunct of the nominalized predicate.

There are several ways of implementing this in terms of syntactic structure. For concreteness, we adopt Hiraiwa and Ishihara's (2002: 43) analysis, according to which Japanese movement clefts instantiate a mono-clausal structure with a Rizzi (1997)-style left periphery. The overt cleft configuration is derived in two steps from the underlying *in-situ* focus structure with nominalizer in (12a), to be discussed in §2.4.<sup>6</sup> In a first step, the focus constituent XP moves from its base-generated position to the specifier of the functional projection Spec,FocP, cf. (12b). Subsequently, the nominalized clausal remnant moves around the focus constituent to Spec,TopP by means of remnant topicalization, cf. (12c). As a result, we arrive at a clear syntactic partitioning, with the focus constituent surfacing in pre-copular position. The syntactic structure of (10a) is shown in (13):<sup>7</sup>

- (12) a. [TopP \_\_\_ *wa* [FocP \_\_\_ [FinP/CP [TP ...XP<sub>Foc</sub> ...] *no*] *da*]]  
 b. [TopP \_\_\_ *wa* [FocP **XP<sub>Foc,1</sub>** [FinP/CP [TP ...**t<sub>1</sub>** ...] *no*] *da*]]  
 c. [TopP [**FinP/CP [TP ...**t<sub>1</sub>** ...] *no*]<sub>2</sub> *wa* [FocP XP<sub>Foc,1</sub> **t<sub>2</sub>** *da*]]**
- (13) [TopP [**FinP/CP [TP *Taroo-ga Pari-de t<sub>1</sub> katta*] *no*]<sub>2</sub> *wa* [FocP *tokee-o*<sub>Foc,1</sub> **t<sub>2</sub>** *da*]]**

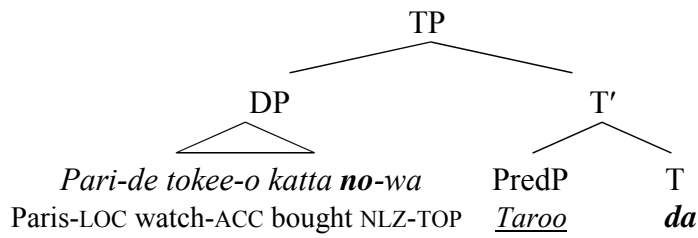
By contrast, the cleft-variants in (9) are not derived by focus movement. Instead, the cleft constituents are base-generated in their surface positions. The absence of focus movement accounts for the observed island insensitivity and for the fact that the cleft constituent invariably shows zero case-marking.<sup>8</sup> To be concrete, we take the cleft constituents in (9) to be generated as part of a pseudo-cleft in which the copula *da* relates the nominalized clausal topic-DP and the focus constituent. This is depicted in (14), in which the focus constituent is base-generated as the predicate of the pseudocleft in pre-copular position, while the nominalized clause takes over the function of subject DP. This analysis is in line with the analysis of English *it*-clefts as concealed pseudoclefts in Percus (1997).

<sup>6</sup> Based on data from NPI-licensing, Cho, Whitman and Yanagida (2008) argue that Japanese movement clefts must involve a bi-clausal structure with the copula element *da* in the matrix T-domain and long movement of the focused constituent into the matrix clause. Since nothing hinges on it for the intents and purposes of this article, we do not take a position on the correct syntactic analysis of Japanese movement clefts.

<sup>7</sup> We leave it open whether the copular element *da* in (12) is base-generated in Foc, or whether it is base-generated in T, as in (14), and moved to its surface position in Foc by means of head movement. Both the assumption of free base-generation in Foc or T and the assumption of T-to-Foc-movement are in line with the ambiguous status of copula elements as focus markers and vice versa, which is cross-linguistically well-attested; cf. McWhorter (1994), Hartmann (2006).

<sup>8</sup> The non-movement analysis may overgenerate insofar as it would seem to predict island configurations, such as (11a), to be potentially ambiguous modulo additional selectional restrictions (which would block the nonsensical interpretation 'It is this paper that John criticized the person that was written by it' for (11a)). Without movement, it should be possible, at least in principle, for the covert relative operator to bind either of the two empty categories inside the embedded relative clause in (11a). In response to this potential problem, one could introduce additional restrictions on the binding of empty categories, or, alternatively, one could resort to partial operator movement from within the relative clause to the edge of the nominalized background constituent; see Cho, Whitman and Yanagida (2008) and references therein. However, such partial operator movement would still constitute an island violation since Op-elements are otherwise blocked from leaving relative clauses (Watanabe 1992). For this reason, we favour an *in situ* account of Japanese non-movement clefts that relies on semantic binding - in accordance with recent work on semantic binding in Japanese (e.g. Kratzer and Shimoyama 2002).

(14) *Base-generated Japanese pseudoclefts*



Taking stock, Japanese has two ways of bringing about a structural partition into focus and background material. The focus constituent can move from its base position to a designated pre-copular focus position, retaining its case features and obeying constraints on movement; or it is base-generated in pre-copular position as part of a pseudocleft in which the nominalized clause functions as the second argument of the copula *da*.

2.2.2 *Exhaustiveness effects* Both partitioning strategies in Japanese induce exhaustiveness effects on the (pseudo-)clefted focus constituent. In our view, the exhaustive meaning component of clefts is not truth-functional, but comes either in form of a presupposition (Percus 1997), or in form of a generalized conversational implicature (Horn 1981). Exhaustive cleft sentences thus differ semantically from sentences with the exclusive truth-functional operator *only*, which entail the falsity of sentences with alternative focus values. By contrast, a violation of the exhaustiveness requirement in Japanese cleft-sentences does not result in falsity, but rather in a presupposition failure, or in the cancellation of an exhaustiveness implicature.<sup>9</sup>

The exhaustive interpretation of Japanese clefts is witnessed by the fact that the cleft constituent cannot be the associate of additive focus particles, such as *mo* ‘also’ and scalar *sae* ‘even’, which trigger a presupposition to the effect that the background predicate does not exclusively hold of the individual denoted by the focused cleft constituent. This is shown for the pseudocleft variant in (15a) and for the focus movement variant in (15b). Notice that the cleft constituent is not in general immune to association with a focus particle, as association with the exclusive focus particle *dake* ‘only’ is compatible with the exhaustive cleft interpretation, and hence licit. (15c) shows that no exhaustiveness effect is present in *in-situ* focusing structures with nominalized clauses as introduced in (2).

- (15) a. [*Taroo-ga Pari-de katta no-wa*] *tokee*(<sup>??#</sup>-*mo*<sup>#</sup>-*sae*/✓-*dake*) *da*.  
 Taro-NOM Paris-LOC bought NLZ-TOP watch-also/-even/-only COP  
 ‘It was (<sup>??#</sup>also/\*even/✓only) a watch that Taro bought in Paris.’

<sup>9</sup> That the exhaustiveness effect is not truth-functional can be seen from the fact that the coordination in (i) is infelicitous in the absence of the overt truth-functional exclusive operator *dake* ‘only’. The infelicity of (i) can be attributed to the fact that the cleft sentence in the second conjunct is uninformative because it does not differ in truth-conditions from the first conjunct. With *dake* present, the exhaustive second conjunct is stronger in terms of truth-conditions, and hence felicitous.

- (i) *Taroo-ga Pari-de tokee-o katta no-wa sitteita ga,*  
 Taro-NOM Paris-LOC watch-ACC bought NLZ-TOP knew alright,  
*Taroo-ga katta no-ga tokee-o-#(dake) da to-wa omowanakatta.*  
 Taro-NOM bought NLZ-NOM watch-ACC-only COP COMP-TOP didn’t.think

‘I knew that Taro bought a watch in Paris, but I didn’t think that it was <sup>#</sup>(only) a watch that he bought.’

Notice that the same holds for the English paraphrase, which has been taken as evidence for the non-truth-conditional nature of the exhaustiveness effect in English *it*-clefts by Horn (1981). See also Drenhaus, Zimmermann & Vasissth (2010) for experimental evidence to the same effect.

- b. [*Taroo-ga Pari-de katta no-wa*] *tokee-o*(<sup>#</sup>-*mo*/<sup>#</sup>-*sae*/✓-*dake*) *da*.  
 Taro-NOM Paris-LOC bought NLZ-TOP watch-ACC-also/-even/-only COP  
 ‘It was (<sup>#</sup>also/\*even/✓only) a watch that Taro bought in Paris.’
- c. [*Taroo-ga Pari-de tokee*(✓-*o-mo*/✓-*o-sae*/✓-*dake-o*)] *katta no da*.  
 Taro-NOM Paris-LOC watch-ACC-also/-ACC-even/-only-ACC bought NLZ COP  
 ‘Taro bought also/even/only a watch in Paris.’

The data in (15ab) suggests that the ban on additive focus particles is contingent on surface partitioning irrespective of whether it comes about by base-generation or by focus movement.<sup>10</sup> Anticipating the discussion in §2.4, this finding is corroborated by the fact that association of focus constituents with additive focus particles is indeed possible in the *in-situ* focus construction. Table 1 gives an overview of the grammatical and semantic properties of the three major focusing strategies in Japanese.

Table 1: Properties of Japanese *in-situ* and *ex-situ* focusing constructions/clefts

|   | CASE MARKING ON FOCUS | ISLAND SENSITIVITY | EXHAUSTIVENESS |
|---|-----------------------|--------------------|----------------|
| cleft   | yes                   | yes                | <b>yes</b>     |
| pseudo-cleft                                  | no                    | no                 | <b>yes</b>     |
| nominalized <i>in-situ</i> focus construction | yes                   | no                 | no             |

The data summarized in Table 1 show conclusively that a mandatory exhaustive interpretation is not a property of focus per se, but arises only when the focus constituent is clefted. We also see that the exhaustiveness effects cannot automatically be linked to the nominalizing head *no*, which is present in the *in-situ* focus construction as well. For this reason, we tentatively conclude that it is the syntactic partition into focus and background – in combination with topic marking on the background part – that is responsible for the exhaustive interpretation of focus constituents. The topic-marked background constituents establish a referential address in the common ground (Reinhart 1982, Krifka 2008, Endriss 2009), and can thus be conceived of as (definite) individual-denoting expressions of semantic type  $\langle e \rangle$ . This is reflected by our choice of the category label DP on the background part in (14). Because of the topic semantics, Japanese cleft sentences can only be interpreted as identificational statements: the copula element equates the two type- $\langle e \rangle$  expressions denoted by the clefted focus constituent and the topic-marked background, respectively. Since the topical background constituent is semantically definite, the exhaustiveness effect arises from the interaction of the maximality presupposition of the topic expression, on the one hand, and the equative semantics of the copula element *da*, on the other. The semantic representation for the schematic cleft structure in (16a) is given in (16b).

- (16) a. [ $Y_{BG}$ -NLZ-TOP] [ $X_{FOC}$ ] COP  
 b.  $\iota x \llbracket Y_{BG} \rrbracket (x) = \llbracket X_{FOC} \rrbracket$   
 = 1 iff the unique  $x$  satisfying the background property is equal to the focus denotation

The semantic representation of exhaustive Japanese clefts in (16b) is on par with the semantic representations proposed for exhaustive focus constructions in Hungarian (Kenesei 1986, Szabolcsi 1994) and for *it*-clefts in English (Percus 1997). The difference with Japanese clefts is that the application of the iota-operator is triggered by the presence of overt topic marking

<sup>10</sup> We have no analysis for the subtle, though robust, fact that *-mo* ‘also’ is slightly better in the (base-generated) pseudocleft (13a) than in the (movement) cleft in (13b).

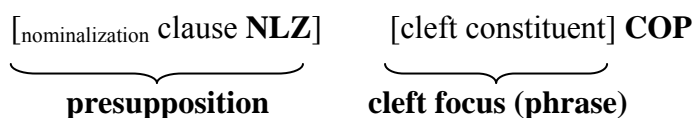


in Japanese. We will return to the issue of exhaustive interpretations in connection with Burmese clefts and with Burmese and Japanese *in-situ* foci in sections 2.3 and 2.4, in which we show that exhaustiveness is always tied to the presence of an overt syntactic partition in these languages.

### 2.3 Overt syntactic partitioning in Burmese/Myanmar

The Burmese cleft structure parallels its Japanese counterparts both in terms of linear sequencing and in that the presupposed part is expressed by means of a nominalized clause. Compare (17) with (8) above:

(17) *Basic structure of Burmese cleft sentences*



(18a-c) exemplify this pattern with the Burmese counterparts of the Japanese clefts in (9a-c).

- (18) a. [*pe:ris-hma. naji-ta-loun: wekhe.-ta(-ka.)*]    *pol:*    (*hpji' te*)    [S]  
 Paris-LOC clock-one-CL bought-NLZ-TOP    Paul    COP RLS  
 ‘It is Paul who bought a watch in Paris.’
- b. [*pol: pe:ris-hma. we-khe.-ta(-ka.)*]    *naji-ta-loun:*    (*hpji' te*)    [O]  
 Paul Paris-LOC bought-NLZ-TOP clock-one-CL    COP RLS  
 ‘It was a watch that Paul bought in Paris.’
- c. [*pol: naji-ta-loun:-kou wekhe.-ta(-ka.)*]    *pe:ris-hma.*    (*hpji' te*) [LOC]  
 Paul clock-one-CL-OBJ bought-NLZ-TOP Paris-at    COP RLS  
 ‘It was in Paris where Paul bought a watch.’
- d. [*θu nε' cənɔ twe' Ta*]    *məne'ka' pa*    [TEMP]  
 3SG with 1SG meet NLZ yesterday POL  
 ‘It was yesterday that I met him.’ (Vittrant 2008; her transcription)

The Burmese cleft constructions differ from Japanese clefts in a number of superficial ways. First, the presupposed nominalized clause need not be overtly topic-marked, as the topic marker *ka.* is optional. Second, unlike in Japanese, we find only one *ex situ* clefting strategy in Burmese, which gives rise to the question of whether the sentences in (18a-c) are instances of base-generated pseudoclefts or movement clefts. Since Burmese lacks regular case-marking, the absence of overt case-marking on the cleft constituent is not a reliable diagnostic for the pseudocleft analysis. The evidence from island configurations is univocal, though. *Wh-* and cleft-dependencies are easily established across island boundaries. This is shown for a complex DP in (19).<sup>11, 12</sup>

<sup>11</sup> We also encountered a variant of (19a) with the *wh*-word *in situ*; cf. (i).

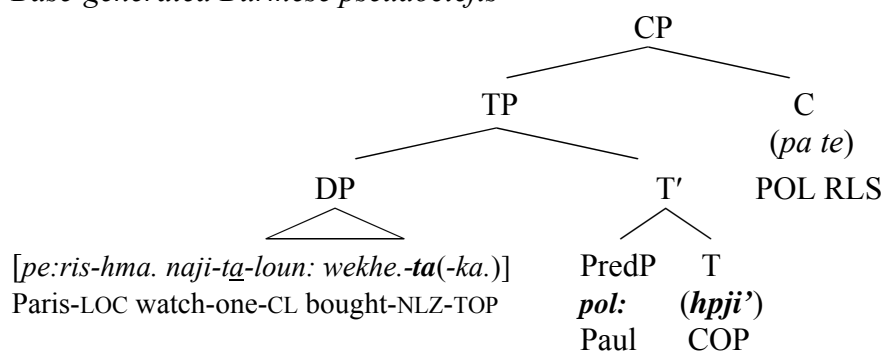
(i) [*pol: apji' sha khe.te.-lou ba wekhe.-ta*] *le:*  
 Paul criticized the.one.who-OBJ what bought-NLZ Q  
 lit.: ‘What is [the thing] such that Paul criticized the person who bought (it)?’;  
 i.e. ‘What is the x such that Paul criticized the person who bought x?’

The structure in (i) is actually the preferred way of expressing the intended question meaning and constitutes an instance of an *in-situ* focus structure as introduced in (2b). The *wh*-word occurs in its canonical preverbal focus position, but inside an island (the relative clause in the DP), whereas the question operator takes matrix scope. This suggests that the focused constituent in *in-situ* focusing structures is interpreted *in situ* as well.

- (19) a. [pol: *apji' sha khe.te.-lou wekhe.-ta*] *ba le:*  
 Paul criticized the.one.who-OBJbought-NLZ what Q  
 lit.: 'What is [the thing], such that Paul criticized the person who bought (it<sub>i</sub>)?';  
 i.e. 'What is the x such that Paul criticized the person who bought x?'
- b. [pol: *apji' sha khe.te.-lou wekhe.-ta*] *ti naji pe.*  
 Paul criticized the.one.who-OBJbought-NLZ this watch POL  
 lit.: 'It is this watch that Paul criticized the person who bought (it).';  
 i.e. 'It is this x, x = this watch, such that Paul criticized the person who bought x.'

In light of these facts, we conclude that the Burmese clefts in (18) have the structure of pseudoclefts as depicted in (20). The analysis parallels the one for Japanese pseudoclefts in (14), except for the additional CP structure on top of TP, which is taken to host the sentence-final functional elements in Burmese.

(20) *Base-generated Burmese pseudoclefts*



Finally, the Burmese clefts in (18) pattern with their Japanese counterparts in that they, too, are interpreted exhaustively; cf. the Japanese cleft in (15a), repeated here as (21a), with the Burmese cleft in (21b). Neither sentence allows for association of the clefted focus constituent with additive or additive scalar particles.

- (21) a. [*Taroo-ga Pari-de katta no-wa*] *tokee*<sup>(?#-mo/#-sae/✓-dake)</sup> *da* [JAP]  
 Taro-NOM Paris-LOC bought NLZ-TOP watch-also/-even/-only COP  
 'It was (<sup>?#</sup>also/<sup>#</sup>even/✓only) a watch that Taro bought in Paris.'
- b. [pol: *pe:ris-hma. wekhe.-ta*] *naji-ta-loun:*<sup>(#le:/#-taun/✓-be:)</sup> *hpji' te* [MYA]  
 Paul Paris-LOC bought-NLZ watch-one-CL-also/even/-only COP RLS  
 lit.: 'It was (<sup>#</sup>also/<sup>#</sup>even/✓only) a watch that Paul bought in Paris.'

<sup>12</sup> Given the interpretations of (19ab), the embedded background *ta*-constituents exhibit the unexpected word order SVO in place of the typical order SOV. It would seem that the sentences in (19ab) are structurally ambiguous and give rise to a second (non-sensical) reading that is compatible with the normal SOV-order, and according to which (19a) could also mean something like 'What is the thing that bought the man whom Paul criticized' (Pavel Ozerov, p.c.). In spite of this, we feel confident about the validity of these data for the following reasons: (i.) the structures in (19ab) were volunteered by our consultants, which otherwise did not offer non-sensical translations that were unrelated in meaning to the English input; (ii.) on several occasions, our two consultants delivered converging data sets without hesitation, a situation not typically encountered with non-sensical statements; (iii.) the alternative *in situ*-construal of the *wh*-question in (i) in fn. 11 clearly shows that a SVO-interpretation is available for this type of construction. In light of these facts, we consider the data in (19ab) to form an important source of information on the syntactic structure of clefts in Burmese.

The exhaustiveness of Japanese and Burmese clefts patterns with the semantic interpretation of pseudoclefts and *it*-clefts, which are commonly taken to be exhaustive in English and related languages; see, e.g. Krifka (2008), É. Kiss (1998, 1999), Percus (1997), and Delin and Obenauer (1995), among others; but see Horn (1981) and Dufter (2009) for an opposing view of clefts as not necessarily exhaustive. At the same time, Davis et al. (2004) and Koch and Zimmermann (to appear) show that clefts are not interpreted exhaustively in several languages of the Salish family of Western Canada. Taking up an argument in Percus (1997), von Stechow and Matthewson (2008) link the absence of exhaustiveness or uniqueness effects in Salish to the general absence of definite determiners in these languages. In the same vein, we suggested above that the presence of exhaustiveness or uniqueness effects in Burmese and Japanese clefts is linked to the (optional) presence of the topic marker, which forces a definite interpretation on the presupposed nominalized clause. If this line of thinking proves correct, the overt syntactic partitioning into cleft constituent and presupposed background will only be a necessary, but not a sufficient condition for exhaustiveness effects, depending on independent grammatical properties of the language under discussion. We will come back to the relation between syntactic partitioning and exhaustive interpretation in section 2.5.

## 2.4 Nominalized main clauses with *in-situ* focus in Japanese and Burmese

In addition to the cleft constructions investigated so far, Japanese and Burmese exhibit another focusing strategy involving nominalized clauses. This strategy involves a nominalized declarative main clause without overt partitioning into focus and background. Instead, the focus is a constituent of the nominalized clause, as shown schematically for Japanese in (22). As noted in §2.2, it is this structure from which Hiraiwa and Ishihara (2002) derive overt movement clefts.

(22) *Japanese in-situ focus with nominalized clauses*

[<sub>CP/DP</sub> [<sub>TP</sub> ... [focus] ...] *no*] (COP)

The focus constituent in (22) occurs in its base-generated (*in-situ*) position. In the absence of overt syntactic partitioning, the focus-background structure is indicated by prosodic means. The focus accent can be placed freely in the nominalized structure, as is typical of free association with (prosodic) focus. The nominalized *in-situ* focus structure in (23) is thus multiply focus-ambiguous and, depending on context and accent placement, can be used to express the focus-background structures in (24a-h), respectively (focus underlined):

(23) [*Taroo-ga Pari-de tokee(-o) katta no*] (*da*).  
 Taro-NOM Paris-LOC watch-ACC bought NLZ COP

- |         |  |          |
|---------|--|----------|
| (24) a. | ‘ <u>Taro</u> bought a watch in Paris.’        | [S]      |
| b.      | ‘Taro bought <u>a watch</u> in Paris.’         | [O]      |
| c.      | ‘Taro bought a watch <u>in Paris</u> .’        | [ADV]    |
| d.      | ‘ <u>Taro</u> bought <u>a watch</u> in Paris.’ | [S + O]  |
| e.      | ‘Taro <u>bought</u> a watch in Paris.’         | [V]      |
| f.      | ‘Taro <u>bought a watch</u> in Paris.’         | [VP]     |
| g.      | ‘Taro <u>bought a watch in Paris</u> .’        | [VP]     |
| h.      | ‘ <u>Taro bought a watch in Paris</u> .’       | [clause] |

Burmese, too, has a focus strategy in which the focus constituent occurs inside a nominalized main clause, but the resulting structures differ from their Japanese counterparts in three ways. First, unlike in Japanese, the copula is never overtly realized. Second, the nominalizing ele-

ment appears in two forms, namely as realis *ta*, or irrealis *hma* (cf. §1). The third difference is more significant and concerns the fact that Burmese imposes an additional positional requirement on the position of the focus constituent inside the nominalized clause. The focus constituent must immediately precede the sentence-final verb, as shown for O-focus in (25a), which is an infelicitous answer to a subject *wh*-question, and for S-focus in (25b), which is an infelicitous answer to an object *wh*-question.<sup>13</sup>

- (25) a. Q: Who is buying a watch? [S-wh]  
 A: #*pol:* *naji-ta-loun:-kou* *we nei ta* [O-foc]  
 Paul clock-one-CL-OBJ buy PROG NLZ  
 ‘Paul is buying a watch.’
- b. Q: What is Paul buying? [O-wh]  
 A: #*naji-ta-loun:-kou pol:* *we nei ta* [S-foc]  
 clock-one-CL-OBJ Paul buy PROG NLZ  
 ‘Paul is buying a watch.’

The pattern in (25) replicates the preverbal focus constraint in canonical declarative clauses in Burmese (Simpson and Watkins 2005) and other SOV-languages; cf. (26ab).<sup>14</sup>

- (26) a. *pol:* *pe:ris-hma naji-ta-loun:-kou* *wekhe.-te* [O]  
 Paul Paris-LOC clock-CL-OBJ bought-RLS  
 ‘Paul bought a watch in Paris.’
- b. *pol:* *naji-ta-loun:-kou pe:ris-hma* *wekhe.-te* [LOC]  
 Paul clock-CL-OBJ Paris-LOC bought-RLS  
 ‘Paul bought a watch in Paris.’

Moreover, the preverbal focus constraint is also active in *wh*-question formation (cf. Simpson and Watkins 2005: 36, transcription theirs except for the proper name; cf. also fn. 11).

- (27) a. *pol:* *ba wje-dha le:?*  
 paul what buy-RLS Q  
 ‘What did Paul buy?’
- b. *dihsa.aup.kou bedhu wje-dha le:?*  
 this.book.OBJ who buy-RLS Q  
 ‘Who bought this book?’

The active status of the preverbal focus constraint in Burmese nominalized *in-situ* focus constructions may therefore be taken as an indicator of a high degree of assimilation of this sentence type to the canonical declarative sentence type. The schematic structure of Burmese nominalized *in-situ* focus constructions with nominalizers *ta* and *hma* is given in (28).

- (28) [CP/DP [IP ... [focus] V ] *ta/hma* ]

Turning to the semantic properties of the nominalized *in-situ* focusing structures in Japanese and Burmese, it shows that these are unspecified regarding exhaustiveness. It follows that

<sup>13</sup> Notice that the focus constituent intervenes between the verb and other presupposed material to its left such that there is no clear bi-partition into focus and background material in (25ab).

<sup>14</sup> Cf. Simpson & Watkins (2005) for factors that may override the adjacency constraint in individual cases.

additive focus particles can freely associate with the focus constituent inside the nominalized clause, as can scalar additive and exclusive particles.

- (29) a. JAP: ✓ Additive focus particles  
*Taroo-ga Pari-de tokee(-o)-mo/(-o)-sae/dake(-o) katta no da.*  
 Taro-TOP Paris-LOC watch-ACC-also/ACC-even/only-ACC bought NLZ COP  
 ‘Taro bought also/even/only a watch in Paris.’
- b. MYA: ✓ Additive focus particles  
*pol: pe:ris-hma naji-ta-loun:-le: wekhe.-ta*  
 Paul Paris-LOC clock-CL-also bought-NLZ  
 ‘Paul bought also a watch in Paris.’

As already noted in section 2.2, the non-exhaustiveness of Japanese and Burmese *in-situ* focus structures stands in stark contrast to the mandatory exhaustiveness of the corresponding cleft constructions with overt syntactic partitioning. This suggests that it is indeed syntactic partitioning, possibly in interaction with additional factors, which has an effect on semantic interpretation.

## 2.5 Nominalized Focusing Structures in Japanese and Burmese: Summary

Japanese and Burmese exhibit a number of focusing strategies that involve nominalized clauses. Next to a pseudocleft construction (Japanese, Burmese) and a movement cleft construction (Japanese), which involve an overt syntactic partitioning into focus and background, there is also an *in-situ* strategy without partitioning, in which the focus constituent is realized inside a nominalized clause. The semantic interpretation of the various focusing structures in the two languages is summarized in Table 2.

Table 2: Exhaustiveness in cleft and nominalized *in-situ* focus structure

| EXHAUSTIVENESS EFFECT                         | Japanese | Burmese |
|---|----------|---------|
| cleft/pseudo-cleft                            | yes      | yes     |
| nominalized <i>in-situ</i> focus construction | no       | no      |

The table shows that exhaustiveness effects with focus structures are contingent on the overt partitioning of the clause into clefted focus and presupposition in Japanese and Burmese. At the same time, the occasional possibility of non-exhaustive readings in German, English and Romance cleft-sentences pointed out in Prince (1978), Horn (1981) and Dufter (2009), among others, as well as the non-exhaustive interpretation of clefts in the Salish languages, suggests that, universally, overt partitioning may only be a necessary, but not a sufficient condition for the exhaustive interpretation of focus constituents. We conclude the section on Japanese and Burmese with the tentative universal in (30), which remains subject to further cross-linguistic scrutiny.

- (30) *EXH-Universal*:
- (i) If a given language exhibits exhaustiveness effects with focus, and
  - (ii) if that language has two different focusing structures X and Y, such that Y involves a syntactic partition into cleft focus and presupposition, but X does not,
- then the exhaustiveness effects will show up in Y.

The EXH-universal in (30) only postulates a one-way entailment between syntactic structure and semantic interpretation, and it is thus weaker than the bi-directional entailment between

clefting and exhaustive interpretation that is standardly assumed (e.g. É. Kiss 1998, Krifka 2008). In particular, (30) only makes the emergence of exhaustive foci dependent on syntactic partitioning, but it does not require all cleft-structures to be exhaustive. At the same time, it makes no predictions about the exhaustiveness of focus for languages that have only one focusing structure at their disposal.

### 3. Chinese

#### 3.1 Basic facts about Mandarin Chinese

Mandarin Chinese is a VO language with some OV traits. Its DP and PP syntax conforms to the OV type insofar as it has several postpositions and preposed relative clauses (Comrie 2008).<sup>15</sup> The language is mostly isolating with some agglutinating tendencies in aspect and noun formation. Compounding abounds. Mandarin Chinese is a lexical tone language with four tones.

A neutral S ADV V O sentence in correspondence with the Japanese and Burmese sentences in section 2 is given in (31).

- (31) *Zhāngsān zài Bāli mǎi le biǎo.*  
 Zhangsan at Paris buy PRF watch  
 ‘Zhangsan bought a watch in Paris.’

In (31), the VO constituent is preceded by the adverbial, which is, in turn, preceded by the subject. The only difference to Japanese and Burmese in terms of linearization is the VO order (as opposed to the OV order of Japanese and Burmese).

#### 3.2. The basic structure of clefts in Mandarin Chinese: some similarities and differences with Japanese and Burmese pseudoclefts

(32a) presents the counterpart of (31) with the locative phrase clefted. (32b) is the corresponding subject cleft.

- (32) a. *Zhāngsān shì zài Bāli mǎi biǎo-de.* [LOC]  
 Zhangsan COP at Paris buy watch-NLZ  
 ‘It was in Paris where Zhangsan bought a watch.’  
 b. *Zài Bāli shì Zhāngsān mǎi biǎo-de.* [S]  
 at Paris COP Zhangsan buy watch-NLZ  
 ‘In Paris it was Zhangsan who bought a watch.’

The functional elements involved in projecting the cleft pattern in Chinese are the same as in Japanese and Burmese; (32ab) each feature a copula and a nominalizer. Still, the overall make-up of clefts in Chinese differs from those in the other two languages. First, the copula is not clause-final, this being a reflex of the SVO nature of Mandarin Chinese. More importantly, researchers converge on the point that, in Mandarin, the copula does not intervene between the focus presupposition and the clefted phrase, as it does in Japanese or Burmese. Instead, the copula links the topical constituent to its left with the cleft-plus-presupposition part to its right. Given this, and since the nominalizer *de* follows the cleft-plus-presupposition

<sup>15</sup> It is still unclear to what extent the OV tendencies of Mandarin Chinese can be explained in terms of structural influence from other languages; cf., e.g., the discussion of the Altaic influence in the early years of the Manchu Qing dynasty (1644-1911) in Norman (1982), Hashimoto (1986), and Okada (1992).

string, the boundary between focal and presupposed material in Chinese clefts is not clearly demarcated – at least insofar as morphological marking is concerned. Another difference between Chinese and the other two languages concerns the fact that the string between the cleft focus and the nominalizer does not refer to a definite topical entity, as was the case with the NLZ-marked constituents in Japanese and Burmese.<sup>16</sup> This generalization is not just warranted by speakers’ intuitions, but also by a clear distributional characteristic: the *de*-marked constituent in the Chinese clefts discussed here never occurs in the topical position in the left periphery. This position is filled by the outer topical argument of the copula, as pointed out above. Moreover, while the missing head noun of Mandarin pseudoclefts as in (i) of fn. 16 can be rendered explicit, it is impossible to use any overt head nouns in the Mandarin clefts under scrutiny here. Researchers thus widely agree that *de* marks a verbal or clausal category instead (cf. Simpson and Wu 2002 for their C-headed cleft types, Paul and Whitman 2008, Cheng 2008). Hole (2010) adopts Simpson and Wu’s (2002) analysis which proposes that the “nominalizer” structure found in Mandarin clefts is really a structure in which *de* links the cleft presupposition to an empty C head (labeled C<sub>2</sub> in (33)). This empty C head belongs to a paradigm of C categories heading conditional, temporal, reason and other clauses.<sup>17</sup> (33) contrasts a cleft sentence with its zero C<sub>2</sub> head with a conditional clause in which the C<sub>2</sub> head has phonetic content. (We will leave it open here whether CP and C<sub>2</sub>P can be assimilated to Rizzi’s 1997 FocP and FinP, respectively, as suggested by a reviewer.)

- (33) a. *Zhāngsān<sub>j</sub> shì* [<sub>CP</sub> *zài Bāli* pro<sub>j</sub> *mǎi biǎo* [<sub>C</sub> *de<sub>C</sub>*  $\emptyset_{C_2}$  ]].  
 Zhangsan COP at Paris buy watch NLZ  
 ‘It was in Paris where Zhangsan bought a watch.’  
 b. [<sub>CP</sub> [*Tā bù lái*] [*de<sub>C</sub> huà<sub>C2</sub>*] ] ... (conditional clause)  
 (s)he not come NLZ if  
 ‘If (s)he doesn’t come ...’

The fact that the C head follows its hypothesized complement may be surprising in light of the overall SVO character of Mandarin Chinese. Still, as was mentioned in section 3.1 above, Mandarin Chinese does have some OV traits, and therefore clause-final C heads are not entirely unexpected. Note that clause-typing particles in Mandarin-Chinese are likewise clause-final (Cheng 1997), as shown in (34).

- (34) *Zhāngsān mǎi-le biǎo ma/a!*  
 Zhangsan buy-PRF watch Q/EXCLAMATIVE  
 ‘Did Zhangsan buy a watch?’/ ‘Hey, Zhangsan bought a watch!’

We will return to the syntactic derivation of Mandarin clefts below. What matters at the present point is that a general case can be made for the analysis of *de*-marked clefts in Mandarin as involving a clausal category that is headed by *de*; the copula in the structure links the topic constituent (frequently a subject as in (32a)/(33a)) to the cleft-plus-presupposition part. This is

<sup>16</sup> Apart from the clefts discussed in the main text, Mandarin also has pseudoclefts that are structurally and functionally analogous to the Japanese and Burmese pseudoclefts discussed in §§2.1–2.3; cf. (i).

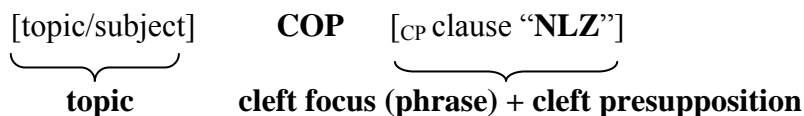
(i) [*Zhāngsān zài Bāli mǎi-de (dōngxi)*] *shì biǎo*.  
 Zhangsan at Paris buy-NLZ thing COP watch  
 ‘What Zhangsan bought in Paris was a watch.’

Given the analysis of Japanese and Burmese pseudoclefts in the previous sections, sentences as in (i) receive a straightforward analysis (cf. Hedberg and Jhang 1994). By contrast, the Mandarin cleft structure to be analysed in the main text requires an analysis which is different from the one given for the pseudoclefts in Japanese and Burmese, even though it is based on the same functional expressions, viz. a nominalizer and a copular element.

<sup>17</sup> Cf. Zhang (2009) for independent evidence that *de* occurs in structures with iterated heads of a single general type.

depicted in (35). The nominalizer element in (35) is marked by scare quotes to remind the reader that the presence of the nominalizer in (35) does not yield a nominalized complement of the copula, unlike in Japanese and Burmese. As pointed out in section 1, we stick with the terminological tradition in this respect because the range of polysemous instances of the Chinese nominalizer *de* overlaps to a great extent with that of Japanese *no* and Burmese *ta/hma*.

(35) *Basic structure of Chinese cleft sentences*



The syntax of the post-copular part of the cleft structure in (35) is a controversial issue. Despite intensive research efforts made over the past thirty years or so, no consensus has been arrived at in this domain (Simpson and Wu 2002, Cheng 2008, Paul and Whitman 2008). Here, we adopt Hole’s (2010) recent proposal for the analysis of Chinese clefts, but we do so against the background of competing theories.

### 3.3. Exhaustiveness and positional restrictions with Chinese clefts

There are two basic generalizations to be accounted for by any theory of Chinese clefts. First, Chinese clefts display exhaustiveness effects. Second, there are positional restrictions on the cleft focus phrase. We will look at each of these generalizations in turn.

The exhaustiveness effect of Chinese clefts is evinced by the example in (36) (cf. Paul and Whitman 2008: 420).

- (36) *Tā shì zài Běijīng xué yǔyánxué de,*  
 (s)he COP at Beijing study linguistics NLZ  
<sup>#</sup>*dàn yě shì zài Shànghǎi xué de.*  
 but also COP at Shanghai study NLZ  
 ‘It’s in Beijing that (s)he studied Chinese, <sup>#</sup>but also in Shanghai.’

The effect is absent with the sentence-medial variant of the so-called *Bare-shì Focus Construction*. This construction is, correctly, we believe, analyzed as an *in-situ* association-with-focus pattern by Paul and Whitman (2008). The *Bare-shì* counterpart of (36) is shown in (37). (38) illustrates the free focusing options found with this construction.

- (37) *Tā shì zài Běijīng xué-guo yǔyánxué,*  
 (s)he COP at Beijing study-ASP linguistics  
*dàn yě shì zài Shànghǎi xué-guo.*  
 but also COP at Shanghai study-ASP  
 ‘(S)he studied Chinese in Beijing, but also in Shanghai.’

- (38) *Tā shì [zài Běijīng [xué-guo yǔyánxué]].*  
 (s)he COP at Beijing study-ASP linguistics  
 ‘(S)he studied linguistics in Beijing.’ [LOC]  
 ‘(S)he studied linguistics in Beijing.’ [O]  
 ‘(S)he studied linguistics in Beijing.’ [V]  
 ‘(S)he studied linguistics in Beijing.’ [VP]  
 ‘(S)he studied linguistics in Beijing.’ [LOC+VP]

The *Bare-shì* Focus construction thus patterns with the *in-situ* focusing structures discussed for Japanese and Burmese in section 2.4. Given that we have two focusing constructions in



Mandarin Chinese, only one of which displays exhaustiveness effects, the EXH-universal makes us expect that, if there is a syntactic partition involved in focus marking, it ought to show up with the *shì...de* construction, and not with the Bare-*shì* Focus Construction. Provided that the order of constituents in the *shì...de* clefts considered so far is identical to the one found in canonical sentences and in the Bare-*shì* Focus Construction, the existence of a syntactic partition in Chinese *shì...de* clefts is not immediately transparent (see above). However, there is an additional positional restriction that allows us to make a case for the presence of a syntactic partition in Chinese clefts as well. This restriction concerns the fact that the large majority of Chinese cleft sentences only allow for cleft focus phrases to be located adjacent to the copula (see section 3.4 for a regular class of exceptions to this generalization). This generalization is illustrated in (39).<sup>18</sup>

- (39) a. *Zhāngsān shì zuótiān zài bàngōngshì xiě shī de.*  
 Zhangsan COP yesterday at office write poem NLZ  
 ‘It was yesterday that Zhangsan wrote poems in his office.’
- b. *Zhāngsān shì (<sup>#</sup>zuótiān) zài bàngōngshì xiě shī de.*  
 Zhangsan COP yesterday at office write poem NLZ  
 ‘It was in his office that Zhangsan wrote poems (<sup>#</sup>yesterday).’
- c. *Zuótiān Zhāngsān shì zài bàngōngshì xiě shī de.*  
 yesterday Zhangsan COP at office write poem NLZ  
 ‘Yesterday it was in his office that Zhangsan wrote poems.’
- d. *Zuótiān shì Zhāngsān xiě shī de.*  
 yesterday COP Zhangsan write poem NLZ  
 ‘Yesterday it was Zhangsan who wrote poems.’

(39a) has the immediately post-copular adverb as a cleft focus. If we were to try to interpret the second post-copular constituent as focused instead, as in (39b), the result would be infelicitous. (39c) provides a way of expressing the intended cleft partition of (39b), with the intervening adverb of (39b) being realized in topic position, and with the cleft constituent adjacent to the copula. Finally, (39d) demonstrates that subjects may likewise be clefted.

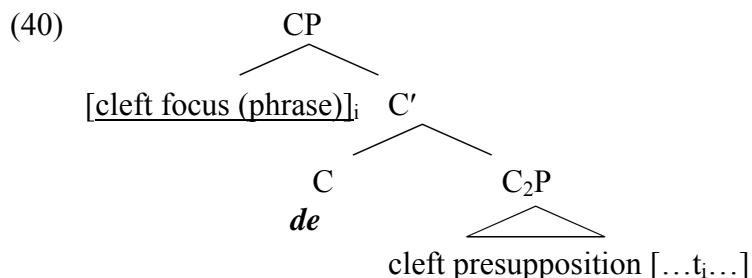
### 3.4. The syntax of Chinese clefts

We take the positional requirement introduced in the previous subsection to be indicative of a syntactic partition at the surface of Chinese clefts. We thus start out from the hypothesis that there is a syntactic position in the complement of the copula in Chinese clefts which is designated to host clefted constituents. At the same time, we saw in the previous subsection that the functional element differentiating between the *in-situ* focusing Bare-*shì* Focus Construction and cleft sentences is the nominalizer *de*. Hence it is natural to assume that the projection of clefts in Chinese is triggered by *de* and by the structure that comes with it. This conclusion brings us back to a challenge that we left unresolved in section 3.2 in the context of clause-final C heads in the SVO language Chinese. There, we argued that there is evidence to the effect that *de* and other clause-final elements instantiate such clause-final C heads. What adds to this challenge at the present point is our claim that *de* partakes in the projection of the syn-

<sup>18</sup> Cheng (2008) presents an analysis of Chinese *shì...de*-clefts in terms of free focus. According to her analysis, the focus may be expressed by any constituent within the complement of the copula *shì*. However, this view is at odds with the traditional view that most clefted foci in Chinese clefts must be adjacent to the copula. Hole (2010) aims at reconciling Cheng’s (2008) intuition of free focus with the traditional view. He argues that Cheng’s (2008) free foci in cleft sentences are, for the most part, corrective foci that supersede (second-occurrence) cleft foci in the position adjacent to the copula.

tactic cleft configuration even though *de* is not in a syntactic position where it could indicate the cleft-and-presupposition divide in a perspicuous manner.

In response to this twofold challenge, we assume with Hole (2010) that the clause-final position of *de* is the result of PF movement. At spell-out, and also at LF, the structure of Chinese clefts is as in (40).



The PF linearization with the presuppositional constituent preceding *de* is derived in the following manner: *de* is an enclitic that must attach to a deaccented host.<sup>19</sup> Since the material in the cleft focus phrase is not deaccented, LF-preposing of the cleft presupposition is the only way to abide by the cliticization requirements of *de*.

There is a variant of Chinese clefts that, according to our analysis, displays a slightly larger discrepancy between its PF and LF representations than the cleft constructions looked at so far. This variant is mainly found in Northern dialects (Paul and Whitman 2008: 427), and it allows for object foci at the right edge of the clause; cf. (41).

- (41) *Zhāngsān shì chàng-de shénme gē?* (cf. Paul and Whitman 2008: 428)  
 Zhangsan COP sing-NLZ what song  
 As for Zhangsan<sub>i</sub>, [what was the song]<sub>CLEFT FOCUS PHRASE</sub> he<sub>i</sub> sang?

Notice that the availability of object focus interpretations with *shì...de* clefts is restricted to this marked clefting option with the word order V NLZ O and the peculiar surface linearization of the nominalizer *de* preceding the object. By contrast, *shì...de* clefts with the unmarked word order V O NLZ (if there is an object) can never express object focus. In addition to object cleft readings, V *de* O clefts also allow for the interpretation of subjects and adjuncts in immediately post-copular position as clefted foci, same as in clefts with clause-final *de*.<sup>20</sup>

Hole (2010) argues that V *de* O clefts as in (41) and (42) can, to a large extent, be assimilated to the canonical V O *de* pattern if it is assumed that, in V *de* O clefts, object shift precedes the cliticization of *de* to the verb. A derivation of (42) along these lines is schematically shown in (43).

- (42) *Wǒ shì xiě-de shī.*  
 I COP write-DE poem  
 ‘It’s poems that I write.’

- (43) a. OBJECT SHIFT  
 [AspP *shī*<sub>i</sub> ... [<sub>v</sub> v *xiě* t<sub>i</sub>]]  
 poem write  
 b. REMNANT PF MOVEMENT

<sup>19</sup> Cf. Xu (1999) for phonetic correlates of deaccentuation in Mandarin Chinese (lowering of  $f_0$  and compression of  $f_0$  range). Cf. Hole (2010) for the complete picture of *de*-cliticization including a class of principled exceptions to the deaccentuation requirement.

<sup>20</sup> See Lee (2005), Paul and Whitman (2008) and Hole (2010) for further discussion of the distribution of V *de* O clefts, which is still poorly investigated and controversial.

[ (xiě)<sub>PF</sub>      [C **-de**    ... [Asp shī<sub>i</sub>    ... (xiě)<sub>spell-out</sub> ]]]  
 write                      DE                      poem    write

Since object shift in Mandarin is restricted to finite clauses (Paul 2002), it is plausible to assume that the position of the shifted object is the specifier position of some inflectional category. For the sake of concreteness, and given that Mandarin has grammaticalized aspect, we take this position to be Spec,Asp. In (43a), the object has moved to Spec,Asp. (43b) shows the result of PF movement, where the remnant constituent has moved around the shifted object to the specifier position of the C-category headed by *de*. Similar proposals have been made by Cho and Nishiyama (2000: 40) for VP-fronting without objects in Yoruba (Kwa, Niger-Kongo), and by Simpson (2001: 109) for Thai VP-fronting without objects across modal verbs. The fact that *de* attracts the verb (and not the object) as clitic host is accounted for by *de*'s aforementioned restriction to cliticize onto deaccented material. Note that the V *de* O pattern does not allow for verb clefts. This is expected since, if the verb was focused, it would be accented and would thus not be a potential host for the cliticization of *de*.

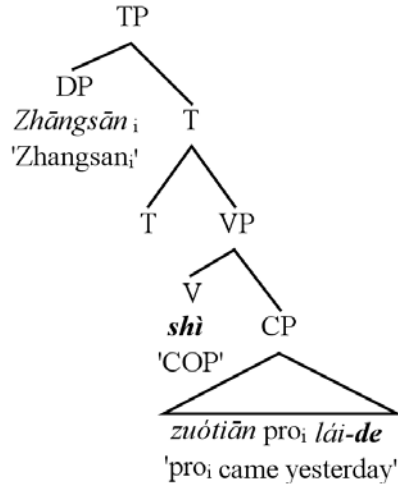
The proposed analysis derives the V *de* O pattern, and it does so in a plug-in fashion that simply adds one extra operation – object shift – to the analysis of V O *de* clefts. We take this to be an advantage of the general proposal. Moreover, the grammaticality patterns observed with V *de* O clefts correspond in part to those found with mere object shift in Mandarin. Most importantly, neither V *de* O clefts nor object shift structures allow for overtly marked indefinites as objects; cf. Shyu (2001) on object shift, and Lee (2005), Paul and Whitman (2008) and Hole (2010) for the same restriction found with the V *de* O pattern.

Notice finally that the combination of object shift and PF remnant movement derives the surface V *de* O pattern, but it does not yet assimilate V *de* O object clefts as in (41) to the syntactic representation in (40). In response to this situation we assume that the shifted object moves on to spec,C of (40) in the LF branch of grammar if it is a cleft focus.<sup>21</sup>

For the copula-headed structure above the cleft structure proper we propose, again following Hole (2010), that the copula is a verbal element which embeds the cleft CP inside a higher clausal layer. A parallel assumption is made by Simpson and Wu (2002) and, similarly, by Paul and Whitman (2008). Simpson and Wu (2002) argue that the copula has present-tense implications of its own, thereby justifying a doubly tensed structure for Chinese clefts; see Simpson and Wu (2002) and Hole (2010) for details. (44b) depicts the resulting biclausal structure of (44a). The internal structure of the CP node in (44b) is again as in (40).

- (44) a. *Zhāngsān*<sub>SUBJECT/TOPIC</sub> *shì* [*zuótiān lái-de*]<sub>COMMENT</sub>.  
 Zhangsan                      COP yesterday come-DE  
 ‘As for Zhangsan, it was yesterday that he came.’  
 b.

<sup>21</sup> The assumption that the object in object V *de* O clefts moves to spec,C only in the LF branch is not trivial, unless one assumes a strict preference for movement procrastination. Hole (2010) proposes, in line with Fox and Pesetsky (2005) in their analysis of Scandinavian object shift, that PF-true linearization constraints are active in V *de* O clefts. If the object moved to spec,C before spell-out, the result would be an OV order at PF. This order, albeit available in Chinese, is not canonical. Chinese clefts, however, always display the canonical word order.



To conclude this subsection, we argue for a syntactic partition underlying Chinese *shì...de* clefts. The partition is brought about by the nominalizer *de*. At spell-out and at LF, the presupposition is the complement of *de*; the cleft focus phrase has moved out of the complement of *de* to its specifier. Since *de* comes with a requirement to cliticize onto deaccented material the presupposition is preposed before *de* at PF. In the case of V *de* O clefts, this PF movement step is preceded by object shift before spell-out. If the object in the V *de* O cleft is in focus, it moves to the specifier position of *de* in the LF part of the syntax, thereby preserving the canonical surface syntax of Chinese clefts. The copula *shì* embeds the cleft CP in a tensed structure of its own with the subject of the copula in spec,T.

### 3.5 The source of exhaustiveness in Chinese *shì...de* clefts: Event presuppositions

As discussed in sections 1 and 3.2 above, the presupposition part headed by *de* in Chinese clefts is a verbal or sentential category. As such, we do not expect it to denote an individual, as was the case with Japanese and Burmese cleft structures. Consequently, we cannot rely on an identificational semantics along the lines of (16b) in section 2.2.2 to produce the exhaustiveness effect in Chinese. What Hole (2010) proposes instead is that *de* comes with a presupposition that is very much akin to the uniqueness presupposition of the definite article. However, instead of quantifying over individuals, the existence and uniqueness presuppositions induced by *de* affect the ontological domain of events. What *de* presupposes is that there is just a single contextually salient event of the presupposition type.<sup>22</sup> *De* thus bears a certain resemblance with definite event markers in other languages, such as Fongbe or Haitian Creole (Larson 2003), and also Mohawk (Baker and Travis 1997). However, apart from introducing a presupposition over the domain of events, *de* is semantically inert and denotes the identity function at the level of truth-functional meaning. The exhaustiveness effect eventually arises as a result of a maximality presupposition over (minimal) events that comes at no theoretical cost (Kratzer 2009, in prep.). If one says that Paul is the agent of an event *e*, then it is presupposed that *only* Paul acted as the agent of *e*. To be sure, there may be a larger event *e'* that has *e* as a proper part and in which Paul may have acted as part of a group agent. But even under such circumstances Paul will remain the sole agent of the original smaller event *e*, thus satisfying *e*'s maximality presupposition. Now, if *de* has a presupposition that restricts the number of events of the background type to one, then it will follow that no alternative to the focus

<sup>22</sup> The formal definition of the meaning of *de* fused with the empty C head is given in (i) (Hole 2010).

(i)  $\lambda f_{\langle \tau, \langle s, t \rangle \rangle} : \exists ! e_{\max} \in C \exists u_{\tau} [f(u)(e)=1] \lambda u_{\tau} ' . \lambda e' . f(u')(e')=1$ ,  
 where *f* is the denotation of the cleft presupposition,  
 $\tau$  is a variable over available semantic types of cleft focus phrases, and  
 $u$  is a variable over the semantic domain of the cleft focus phrase

value yields a true predication when it is combined with the background predicate. Put differently, it is the eventive nature of the cleft presupposition, together with the fact that (minimal) events only allow for a single (group) participant per thematic role, that is responsible for the exhaustive interpretation of cleft foci in Mandarin Chinese.

#### 4. Conclusion

The article provides the – to our knowledge – first comparative overview of the syntax and semantics of focusing strategies involving a nominalizing element in three typologically different (South) East Asian languages, namely Burmese, Japanese, and Mandarin Chinese. We have shown that, despite first appearances, syntactic partitioning in form of clefting involving a backgrounded clause with a nominalizer is not only found in Japanese and Burmese, but also in Mandarin Chinese in the form of *shì...de*-clefts.

There are two major syntactic differences between the investigated focusing structures of Japanese and Burmese, on the one hand, and of Mandarin Chinese, on the other. The first is that, alongside cleft structures featuring nominalizations, Japanese and Burmese have nominalized clauses with *in-situ* focusing. This type of structure is unattested in Mandarin, because the *in-situ* Bare-*shì* Focus Construction features no nominalizing element. The second difference concerns the different mappings between the two information-structural parts of the cleft constructions, on the one hand, and the functional elements used to mark them on the other. All three languages make use of copulas and nominalizers in their cleft structures, but they do so in different ways. In this respect, too, Japanese and Burmese pattern alike. Being head-final languages, the copula in these languages follows the (pseudo)cleft presupposition and the cleft focus phrase. The cleft focus phrase forms a constituent with the copula, and this constituent is opposed to the cleft presupposition, thereby instantiating the syntactic cleft partition. The nominalizer heads the presupposition part and is itself followed by a topic marker. In this way, the nominalizer is the functional element associating directly with the cleft presupposition, and the function of the copula is to link the cleft focus with the cleft presupposition. In Mandarin Chinese, by contrast, the syntactic partition into cleft focus and cleft presupposition is brought about by the nominalizer itself. It takes the cleft presupposition as complement, just as in Japanese and Burmese. However, in contradistinction to these languages it is also pivotal for the whole cleft structure as, according to our analysis, it hosts the cleft focus in its specifier. Since the nominalizer *de* is phonologically enclitic in Chinese it cannot surface in its LF-interpretation position between cleft focus phrase and cleft presupposition, but it must cliticize onto the preposed cleft presupposition. This independent phonological property of *de* thus renders the surface syntax of Mandarin clefts superficially similar to Japanese and Burmese clefts, where the nominalizer likewise follows the presupposition part. In its clause-final position, the Chinese nominalizer does not separate the cleft focus from the cleft presupposition at PF in the way it does at LF. All in all, the overall syntactic function of the nominalizer in Chinese clefts is more like that of the copula in Japanese and Burmese clefts. The Chinese copula, by contrast, precedes and c-commands the complete cleft structure and projects a further clausal layer on top of the cleft structure.

Concerning the syntax-semantics interface, we have tentatively proposed an exhaustiveness universal. This universal restricts the occurrence of exhaustiveness effects in languages with partitioned and non-partitioned focusing constructions to the variant with syntactic partitioning, but without postulating a bi-unique dependency between syntactic partitioning and exhaustive interpretation. We have also shown that syntactic partitioning in form of clefting gives rise to presuppositional exhaustiveness effects in all three languages, while the corresponding *in-situ* focusing structures can receive non-exhaustive interpretations as well. Still, there are semantic differences: For Japanese and Burmese, we concluded that exhaustiveness is *not* tied to the nominalizing element. Instead, it is the topic marker attaching to the nomi-

nalized constituent that induces a (type ⟨e⟩) individual interpretation of this constituent. Together with the presence of the copula, the complete cleft structure will receive an identificational interpretation, i.e.  $a = b$ . The denotation of the cleft focus thus inherits its unique reference from the background individual qua identification. In Mandarin Chinese, by contrast, the cleft presupposition is not-topic marked, for which reason it does not receive a topical (type ⟨e⟩) interpretation. Instead, we proposed that the observed exhaustiveness effects are intimately tied to the presence of the nominalizer *de*. The nominalizer introduces a uniqueness presupposition over events, from which the exhaustiveness effect can be derived at no additional costs.

At a more general level, both individuals (as in the Japanese and Burmese cases) and events (as in the Chinese case) can be conceived of as particulars. Hence, we tentatively propose that an account of exhaustiveness in terms of the presupposed uniqueness of particulars is a promising way to account for the similarities and the differences in the interpretation of clefting structures in East and South East Asian languages.

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