

On the Typology of Situation Distributors

Introduction: This study establishes a novel cross-linguistic generalisation regarding the distribution of situation distributors. Overt distributors are classified into those which only distribute over individuals, as exemplified by English *each* in (1), and those which can also distribute over contextually salient situations, as exemplified by German *jeweils* in (2).

- (1) a. Ann and Belle **each** carried three suitcases. (Distribution over individuals)
b. *Ann **each** carried three suitcases. (Distribution over situations)
- (2) Ann hat **jeweils** drei Koffer getragen.
Ann have DIST three suitcases carried
“Ann has carried three suitcases each time.” (Distribution over situations)

To distribute over situations, *each*-type distributors have to take overt nouns such as *time*.

- (3) Ann carried three suitcases **each time**. (Distribution over situations)

A question that arises is whether there is a typological correlation between the type of distributor and other properties of relevant languages. In this study, we address this issue from a morpho-syntactic perspective. We first argue, building on Zimmermann (2002), that German *jeweils* is actually assimilated to English *each (time)* from a morphological perspective, and that the classification of distributors into the “*each*-type” and the “*jeweils*-type” adopted in the literature is misleading. We then propose a new classification of situation distributors based on their morphological composition. Build on this new classification, we establish a novel cross-linguistic generalisation regarding situation distributors, in which the types of situation distributors correlate with Talić’s (2015, 2017) three-way distinction of NP/DP-languages (cf. Bošković 2008, 2012). The generalisation is deduced from parametric variation in the presence/absence of D^0 and two different approaches to situation distributors proposed by Schwarz (2009) and Nakamura (2021). This study thus offers a new dimension of cross-linguistic variation in the domain of semantics from a morpho-syntactic perspective.

New Generalisation: Although Zimmermann (2002) treats German *jeweils* as a distinct type of situation distributor from English *each*, he actually decomposes *jeweils* into *je* as a distributor “each” and *weil* as an overt situation (pro)noun “time” (and *s* as a genitive marking, ignored hereafter). Then, *jeweils* and *each time* essentially have the same morphological make-up: a distributor and a situation (pro)noun. In other words, these situation distributors require an overt situation (pro)noun. In contrast, distributors in some languages do not contain an overt (pro)noun but have a situation reading, e.g., Bulgarian *po*.

- (4) Mary byaga **po** 5 mili predi zakuska.
Mary runs DIST 5 miles before breakfast
‘Mary runs five miles before breakfast (every morning).’ (Petrova 2000)

This observation leads us to propose the following new classification of situation distributors:

- (5) a. Complex Situation Distributor (CSD): a distributor that requires an overt situation (pro)noun (“time”) for situation readings (e.g., English *each*, German *je*)
b. Simplex Situation Distributor (SSD): a distributor that has situation readings without an overt situation (pro)noun (e.g., Bulgarian *po*)

Based on (5), we show English, German, Dutch, Icelandic, Norwegian, Albanian, French, Italian, Portuguese, Latin, and Russian have a CSD, whereas Romanian, Bulgarian, Czech,

Polish, Russian, Korean, Japanese, and Tlingit have an SSD. Crucially, the latter languages either lack a definite article or have affixal definite articles. Thus, we establish the following novel descriptive generalisation (note that this is a one-way correlation):

- (6) Languages with an SSD either lack definite articles or have affixal definite articles.

This means that no languages with non-affixal definite articles have an SSD. The question to be addressed is, then, why the situation (pro)noun can *never* be absent for the situation reading (i.e., CSD) in non-affixal article languages, whereas it may *in principle* be absent for the situation reading (i.e., SSD) in article-less and affixal article languages.

NP/DP-languages distinction: Bošković (2008, 2012) establishes the generalisation that only article-less languages may allow adjunct extraction out of a nominal phrase, as in (7).

- (7) a. *[From which city]_i did Peter meet [girls t_i]? (English)
 b. [Iz kojeg grada]_i je Ivan sreo [djevojke t_i]? (Bosnian/Croatian/Serbian)
 From which city is Ivan met girls

The gist of Bošković’s proposal is that DP necessarily projects above NP and blocks the relevant extraction in languages with definite articles, whereas it is absent in article-less languages and hence the extraction in question is possible. Interestingly, Dubinsky and Tasseva-Kurktchieva (2014) show that in Bulgarian, an affixal article language, the extraction in question is disallowed when the definite article is present, just like English (7a), but it is allowed when the article is absent, just like BCS (7b), as shown in (8).

- (8) [Ot koj universitet]_i sreštna-ha [nyakolko(*-to) studenti t_i]? (Bulgarian)
 from which university met-they several(-the) students
 ‘From which university did they meet several students?’

Appealing to Bošković’s account mentioned above, Dubinsky and Tasseva-Kurktchieva argue that DP is absent in the absence of the definite article in (8), and Talić (2015, 2017) argues that DP may be absent in affixal article languages in general.

Deduction of (6): Schwarz (2009) proposes that situation (pro)nouns (“time”) can only occur as a sister of D^0 , which functions as a distributor (over individuals or situations; cf. *each*). On the other hand, Nakamura proposes that situation distributors lexically encode a free situation variable that corresponds to the situation (pro)noun. Building on this, we propose a hybrid-approach of Schwarz (2009) and Nakamura (2021). Specifically, the free situation variable must be realised as a situation (pro)noun as a sister of D^0 in languages where D(P) must be present (i.e., non-affixal article languages), while they need not in languages where D(P) may be absent (i.e., article-less and affixal article languages). Accordingly, Nakamura’s strategy, in which the distributor function and the situation variable are encoded in a single lexical item, is permitted only in languages where DP may be absent. This means that if projection of DP is necessary, the distributor is necessarily D^0 , which corresponds to a CSD, whereas if projection of DP is not necessary, the distributor need not be D^0 and hence can be an SSD, encoding the situation (pro)noun/variable in its lexical semantics. (Note that this deduction does not exclude the possibility that article-less languages can have a CSD (e.g., Latin, Russian); a CSD can be realized as an element other than D. What is important here is that an SSD is *never* allowed in non-affixal article languages.) Thus, (6) is deduced from the parameterisation of D^0 in the spirit of Talić (2015, 2017) and a hybrid-analysis of situation distributors proposed by Schwarz (2009) and Nakamura (2021), in which these two proposals capture the two parametric options of the situation distributors.