Iterating Nouns and its Guises – Applying the H\(\varepsilon\)o in the Nominal Domain

Summary: This paper sketches aspects of a novel approach to the syntax of nominal phrases, based on Oishi 2014 and on Chomsky’s (2019) Hilbert epsilon operator (H\(\varepsilon\)o) approach to adjunction. It shows how these components deliver a relatively simple, yet powerful syntax, while having ingredients to unify phenomena as diverse as polydefiniteness (PD), non-PD, and nominal concord. At the same time, and importantly, it is tailor-made for article-less languages.

Theoretical Background: A: Drawing on Chomsky (2007) and in an effort to work out parallels between phasal domains, Oishi (2014) assumes that (i) lexical categories are acategorical roots (R), (ii) phase heads (v, n, etc.) categorize Rs, (iii) the “affixes” v and n are invisible to the labeling algorithm (LA) (cf. Chomsky 2015), (iv) the amalgam \(<v/n, R>\) is visible to the LA, which is obtained by Internal Pair Merge (cf. Richards 2009) of R to the phase head, and (v) roots are visible to the LA, but “too weak” to label (Chomsky 2015). (iii)-(v) force R-to-n-raising to make possible that the set comprising the elements can be labeled at all, as in the derivation (1).

(1) a. \{n, R=author\} an unlabelable structure (R, too weak; n, invisible)
   b. \{<R=author, n>, R=author\} a structure labelable by the amalgam, an \(<R, n>P\)

I take n to come in two (purely formal, not semantically interpretable) flavors: n (indefinite) and n* (definite) (cf. Chomsky 2007). B: Addressing the issue of unstructured coordination (as in This guy is young, happy, eager to go to college, . . .), Chomsky (2019) unifies this construction with iterated adjunction phenomena by introducing the H\(\varepsilon\)o. H\(\varepsilon\)o comprises selecting the elements functioning as adjuncts (X_1, . . . X_n), forming a sequence from them, namely \(\Sigma=(Y_1, . . . , Y_n)\), where the elements of the sequence are drawn from the set, but in any possible way. This, in turn, requires an operator K, either conjunction or disjunction. Specifically, H\(\varepsilon\)o involves forming a sequence of pairs comprising the adjunct (e.g., adjectives) and “a link” L, the Pair-Merge target (e.g., noun). H\(\varepsilon\)o aligns each Y with an instance of L, while the operator K specifies the logical connective as in (2).

(2) \(\langle\langle K, \langle Y_1, L \rangle \ldots \langle Y_n, L \rangle \rangle\)

We obtain a structure which roughly means: the man, and the man is old, and the man is friendly, reminiscent of the verbal counterpart of event semantics (cf. Davidson 1967). I assume that, in English(-type languages), all except the structurally lowest noun delete under identity, analogously to what is assumed for the Matching Analysis of relative clauses (cf. Sauerland 1998):

(4)  \(\langle\langle\langle \text{CONJ}, \langle A=\text{friendly, N=man} \rangle, \langle A=\text{old, N=man} \rangle \rangle, \langle A=\text{man} \rangle \rangle\)

Non-PD: The morphological realization of only one definite article in English preceding all adjectives is due to a language-specific rule. It determines that solely the topmost c-commanding A-N-pair realize definiteness, i.e. the friendly spells out \(\langle A=\text{friendly, N=man} \rangle\), while none of the lower A-N-pairs, and N, spell out definiteness. As for constituency considerations, the current approach thus converges in spirit with Leu (2008, 2015) for languages like German. Moreover, the current approach recasts Lieb’s (2005: 1636 ff.) view that languages like English involve “analytical definite nouns,” i.e. a kind of periphrastic definiteness (but no syntactic D-head). This derives non-PD.

PD: Given this much, e.g. Hebrew PD receives a simple analysis. The syntax of an unmodified
definite noun phrase is e.g. N=⟨R=yeled, n*=ha-⟩, which is realized as ha-yeled (‘the boy’). Attributively modifying a definite noun as in (5) amounts to the analysis (7-a). A morphological rule specific to Hebrew determines that each A-N-pair must spell out definiteness (next to N). It follows that obligatory “definiteness spread” emerges as the morphological form of definite adjectives. Modified indefinite nouns as (6) have the analysis (7-b) where n – unlike n* – does not give rise to any morphologically realized article-element.

(5) \( \text{ha-yeled} \) *(the boy)\( \text{ha-yeled} \)

(6) yeled (*ha-)xaxam

‘the smart boy’

Nominal Concord: Strong and weak adjectival declension in languages like German (8)/(9) receives a similar analysis (following previous unification approaches, cf. Leu 2015; Schoorlemmer 2012).

(8) (ein) gut-\( \text{er} \) Wein

(a) good-STR good-wk win

‘(a) good wine’

(9) d-\( \text{er} \) gut-e Wein

The Architecture of Determiners. OUP.

Beyond Iterating Nouns: The current approach to nominal concord emphatically sides with *inter alia* Norris (2014) that nominal concord is nothing (while possessor noun agreement might be) like subject-verb agreement. If anything, parallels to the sentential domain are to be found in possessor noun agreement. However, this begs the question what the sentential counterpart of nominal concord is, as depicted in table (11). If the syntactic mechanism behind nominal concord is the H\( \epsilon \)o applied to N, it appears natural to seek for the counterpart in the verbal domain in adverbial modification (as in ran quickly, nervously), along the lines of (12), where V=⟨R, v*⟩, and to identify adverb endings as expressions of verbal concord.