

Lexical Integrity, Checking and the Mirror

A checking approach to syntactic word formation

1 Admitting syntactic formation of morphologically complex words is commonly deemed to be an infringement on the Lexical Integrity Hypothesis. But syntactic word formation, if understood in terms of the checking of features of subparts of words in designated syntactic positions, is readily reconciled with strong lexicalism. This paper will argue that a checking approach to syntactic word formation, in tandem with a novel interpretation of the Mirror Principle of Baker (1985), yields a straightforward resolution of ‘bracketing paradoxes’ of the *unhappier* and *ungrammaticality* type, as well as of the famously problematic inflectional morphology of the Athapaskan languages (incl. Navajo).

2 A broad consensus (since Chomsky 1970) to the contrary notwithstanding, a syntactic approach to nominalization can be reconciled with lexicalism — via checking theory. The nominalizing affix, while put on the verbal stem in the lexicon (which is assumed here to be prior, *in toto*, to syntactic computation), is ‘syntactically relevant’ (Anderson 1982) in the sense that it needs to check off its nominal feature in a syntactically projected functional category (DP). Nominalizations such as *destruction* or *grammaticality* enter the syntactic derivation as *verbs* and *adjectives*, respectively, projecting a VP/AP which is included in a functional environment in syntax which enables the (uninterpretable) nominal feature of *-tion* or *-ity* to be checked off and eliminated. This way, the approach laid out here espouses the key ingredients of both the lexical and the syntactic accounts of nominalization: it shares with the former the idea that the morphological construct (*destruction*, *grammaticality*) is indeed formed wholly in the lexicon, while it agrees with the latter in recognizing the presence, in the syntactic structure, of a projection carrying the category label of the stem of the nominalization (VP in the case of *destruction*, AP in the case of *grammaticality*).

3 This checking approach generates a new perspective on a subset of ‘derivational morphology’: nominalizing *-tion* and *-ity*, on this approach, are assimilated to *inflectional* morphology in being non-category-changing morphemes that get their (uninterpretable) formal features checked in functional projections. The checking approach also leads to a resolution of *bracketing paradoxes* of the type instantiated by *unhappier* and *ungrammaticality*, dissolving the bracketing problem in such a way that the morphology and phonology wholly determine the word-internal bracketing of derived words, with the appropriate semantic interpretation being read off the syntactic hierarchical structure. The checking approach to *unhappier* and *ungrammaticality* leads to the recognition, in the syntactic structure dominating words of these types, of syntactic projections for negation, degree and adjectival heads (cf. (1), (2)). The syntactically complex structure of *unhappier* and *ungrammaticality* that underlies the checking approach to syntactic word formation is supported on the basis of evidence from polarity item licensing, adverbial modification and *so*-anaphora.

- (1) $[_{DegP} Deg [_{NegP} Neg [_{AP} \dots [_A un_{+NEG} [_A happi -er_{+COMP}]]] \dots]]]$
(2) $[_{DP} D [_{NegP} Neg [_{AP} \dots [_A un_{+NEG} [_A grammatical -ity_{+NOM}]]] \dots]]]$

4 From the checking perspective pursued here, ‘bracketing paradoxes’ of the *unhappier* and *ungrammaticality* types cease to exist *qua* bracketing paradoxes, and in fact cease to be paradoxes. What is special about them is that they turn the mirror upside down: in compiling the sequence of feature bundles of the inflectional elements (cf. Chomsky 1993:28), the complex morphological object is scanned from top to bottom rather than from bottom to top. In this respect, *unhappier* and *ungrammaticality* type bracketing paradoxes exhibit the exact same behaviour as complex inflected verbs in the Athapaskan languages (Speas 1991, Rice 2000, Hale 2001).

5 Why would there be such a choice of ‘mirroring’ when it comes to the compilation of the sequence of feature bundles on a complex X^0 , while — on the assumption that Kayne’s (1994) LCA holds — no comparable choice presents itself in the translation of syntactic hierarchical structure into linear word order? The answer to this question lies in the following difference between the two processes, feature sequencing (FS) and word ordering (WO). In the current derivationalist perspective on syntax, an immediate translation of an asymmetrical syntactic relationship between two nodes into a WO of the terminals of those nodes can be made, at every step along the way. The natural way to go about the creation of a WO, therefore, is to do it in tandem with the syntactic derivation, from the bottom up. Not so in the case of FS: crucially, the compilation of the sequence of inflectional feature bundles has to wait until the entire morphological complex has been constructed. As Halle & Marantz (1993:168) put it, ‘[t]he inflectional feature bundles of the affixes attached to the Verb are arranged in a sequence with “ α ” itself, where ‘ α ’ is the complex morphological object. So FS does not proceed in tandem with the construction of the complex morphological object: it involves a scan of that morphological object *after* it has been completed. The morphological object may be scanned either from the inside out (as Chomsky 1993:28 does it) or from the outside in (as is the case in *unhappier*, *ungrammaticality* and Athapaskan inflected verbs). The former scan gives rise to ‘straight’ Mirror Principle effects, the latter to ‘reverse mirrors’ of the type discussed in this paper. Neither is intrinsically superior to the other: the two are on equal footing. While this opens up more possibilities when it comes to the mapping of morphology to syntax than does the original Mirror Principle, it is not the case that under this ‘two-way mirror’ approach ‘anything goes’: there are precisely two legitimate ways of scanning a morphological object under FS; ‘zig-zagging’ operations are ruled out. The resulting theory is empirically more adequate than Baker’s (1985) Mirror Principle and Chomsky’s (1993:28) recasting thereof, and still theoretically restrictive.

6 The approach to bracketing paradoxes and inflection in general taken in this paper is strongly lexicalist. Only a lexicalist approach to inflectional morphology could give rise to the ‘two-way mirror’ theory. The checking perspective on *unhappier* and *ungrammaticality* in fact allows us to eliminate the tension between Lexical Integrity (or strong lexicalism) and syntactic word formation, which has always been especially poignant in the domain of nominalizations. The approach taken here is syntactic in assigning extensive syntactic structures to deadjectival nominalizations like *(un)grammaticality*; but at the same time it is strongly lexical in fully obeying Lexical Integrity: (i) all the affixes are attached in the lexical morphological derivation, and (ii) the ‘syntactically relevant’ (i.e., checkable) features of the constituents of the complex morphological object are all represented directly at the highest node of the morphological complex (via FS). Thus, the present approach does for so-called derivational morphology (esp. nominalizing morphology) what Chomsky’s (1995) checking approach did in the domain of run-of-the-mill inflection, resolving the tension between lexicalism and syntactic activity.
