Deriving the Mirror Principle

One of the most important pillars of current linguistic theory is the observation (due to Baker (1985)) that syntactic and morphological orderings stand in a symmetrical relation. Although this generalisation has faced some counter arguments (e.g. Boskovic (1997)), there is a pervasive amount of evidence in favour of it. However, a proper explanation for the Mirror Principle is lacking.

Baker (1985) argued that the Mirror Principle is the result of the strict locality of head movement (i.e. the Head Movement Constraint (cf. Travis (1984)), an instance of Relativized Minimality Rizzi (1990). In a structure as in (1) movement of x to Z° can only take place in a roll-up fashion where y first attaches to x, yielding [x-y], which afterwards attached to z, yielding the morphological order x-y-z. However, this analysis not feasible with the many examples where affixes actually are spelled out not as high as the highest affix.

Brody (2000) also strongly argues against the original explanation in terms of cyclic head movement. Instead he argues that a symmetric relation such as the Mirror Principle is rather the basic principle of syntactic theory. In this sense the Mirror Principle is the *explanans* rather than the *explanandum* in morphosyntactic theory, leaving the principle itself unaccounted for. In this paper I argue that the Mirror Principle is a not a linguistic primitive, but is derived directly from the relation between semantics and morphosyntax and the application of the Principle of Relativized Minimality.

Following Von Stechow (2002) and Zeijlstra ((20007) the position of affixes does not correspond to the position where they take scope from. This can for instance be demonstrated in (2) where it follows that the tense operator outscopes the distributive DP, which has scope over the verbal predicate. Hence, the morphological order V-Past does not only represent a syntactic order TP>VP, but also a semantic order PAST>PLAY. According to Zeijlstra (2007) affixes, such as the past tense morpheme -ed, are elements that carry an uninterpretable feature ([uPAST] in this case) that must be checked against an interpretable feature [iPAST], which obviously is located in the position where past tense takes scope from. This feature checking is standardly implemented in the syntactic operation Agree in the sense of (Chomsky 1995). Essentially, what happens in a sentence such as (2) is that the affix represents a covert past tense operator, as shown in (3), which on it turn is licensed by the overt realisation of the past tense marker.

Now suppose some verb has two morphemes, such as the Hungarian example in (4), taken from Brody (2000). This example reflects the semantic ordering PRESENT>PERMISSION>READ, giving rise to a syntactic structure in (5). Now it becomes clear why the syntactic order must have the mirror image of the morphological order. If this weren't the case, the two Agree relations would have crossed each other, a configuration standardly blocked by locality constraints based on Relativized Minimality effects.

In its very essence, affix ordering reduces to the marking of (possibly) covert semantic operators by means of a syntactic Agree relation that is based on a feature checking system in terms of (un)interpretable features. Affixes carry semantically uninterpretable features, whereas semantic operators carry semantically interpretable features. As these features have to establish an Agree relation, the Mirror Principle is nothing but a consequence of the fact that Agree relations are subject to Relativized Minimality conditions.



- (2) Wolfgang played tennis on every Sunday (von Stechow 2002)
 = 'For every Sunday in Pastc there is a time t at which Wolfgang plays tennis'
 ≠ 'There is past time on every Sunday at which Wolfgang plays tennis'
 ≠ 'For every Sunday, there is time before it s.t. Wolfgang plays tennis at that time'
- (3) $[_{TP} PAST_{[iPAST]} \dots [VP \dots played_{[uPAST]} \dots]]$
- (4) Olvas-hat-om Read-permissive-1sg.present 'I may read'
 (5) TP PRES_{EPRES} MODP **J**-DEON_{[i]J}-DEON] VP **V V V V V V V V V V Other Press Other Press**

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