MERGE AND ASYMMETRIC STRUCTURE BUILDING

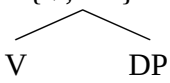
In this talk I provide a reanalysis of the labeling mechanism of *Bare Phrase Structure* (*cf.* Chomsky (1995)). I propose that labels are created derivationally to 'repair' illegible phrase structures. As a corollary, I will argue that argument structure is essentially an 'emergent' property, derived from the asymmetric nature of the labeled phrase structure.

Chomsky (1995) proposes that the output of the merger of two elements α and β is a labeled set {γ, {α, β}} where γ represents the label of the phrase. According to him, the justification of the need of the labeled structure would lie in interface phenomena. Contrarily, some recent works have challenged this idea arguing for a label-free syntax (*cf.* Collins (2002), Seely (2006)). However, I will show that the proposal of the label-free syntax has serious empirical drawbacks commenting briefly the properties of displacement, ellipsis, case marking, p-phrasing, incorporation, and argument structure arguing that all these phenomena make reference to syntactic labels. But given that, the following questions arise (1).

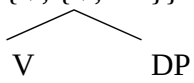
(1) (i) Why do syntactic phrases have labels? (ii) How do labels appear derivationally?
(iii) How do labels identify the set they label?

The idea that Merge is a purely symmetrical set-formation operation (*cf.* Chomsky (2005), Hinzen (2006a/b)) entails that in and of itself, the merger of (α, β) cannot give a labeled structure like {γ, {α, β}}, but a simpler {α, β} set. So, I will argue that the only way to get a labeled structure using just Merge and the lexicon is to have two instances of Merge where the first one creates a bare set and the second one provides it with the label (2).

(2a) Step1: α↔β = {α, β}



(2b) Step2: β↔{α, β} = {β, {α, β}}



However, since the notion of 'labelhood' is vague (after all, V is just one of the members of the {V, {V, DP}} set of (2b)), the ontology and consequences of labelhood will have to be explained. To answer the essential questions of (1i) and (1iii), my proposal will rely in the formulation of the hypothesis in (3).

(3) *Labels as a 'third factor' Hypothesis:* C_{HL} requires intensionally decidable sets/phrases.

Given such a restriction, labeling operations can be explained as *repairing* strategies: the label provides a set/phrase with a coherent intension (*i.e.* all of the members of the set are of a given nature). For instance, in the step1 of (2a), the simple {V, DP} set is created. The question is that, at this step, the set {V, DP} is heterogeneous: there is no grammatical category that can provide it a coherent type, and hence, by (3), it is illegible (assuming a Neodavidsonian conjunctivist semantics, in (2a) we have two unrelated monadic predicates (something like {kiss(e) & Mary(y)}). I will argue that the labeling mechanism provides the step from this adjunct-like syntax of conjunction of independent predicates to the hierarchical predicate-argument syntax based on labels (*cf.* also Hornstein (2005), Hornstein & Nunes & (2008) and Hinzen (2006a/b)): having {V, DP} in (2a), the verbal head (the syntactically active *locus*) is remerged with the structure to give it a coherent type (2b). Now an asymmetry emerges in the new set; crucially, both members of {V, {V, DP}} will have a verbal character (both contain a [+V] categorial feature). Thus, the set {V, {V, DP}} labeled with an event type (*i.e.*, a verbal intension) is readable at the interfaces.

We are left with a last problem though: the primitive {V, DP} of (2a) (now, a member of {V, {V, DP}}) is still an illegible object as defined by (3). And obviously, recursion on the labeling strategy won't

solve the problem, since this only breaks the symmetry among the members of the highest phrase. Here my proposal is a purely repairing strategy: the DP that as such is interpretable as an individual (*i.e*, Val(y, *Mary*) *iff* Mary(y)) is now in a verbal/eventish environment at the highest phrase (a VP), that converges at the interfaces. Thus, the solution to the VP-contained DP is to lift its type (*à la* Pietroski (2005)) to accommodate its type to that of the intension of the highest set that contains it: this is a lifting of the type of the DP complement of V from an individual-denoting type to an *event-participant* one (4).

(4) Val(y, Mary) *iff* Mary(y) → Val(e, int-Mary) *iff* Theme(e, Mary))

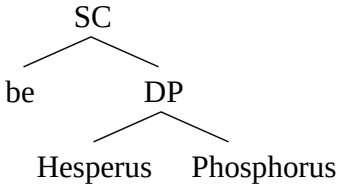
Thus, I argue, it will be this type-lifting what will turn an individual-denoting expression like 'Mary' into an argument of a predicate when it is contained within the projection of the predicate.

As I will show, this analysis accounts naturally for the mysterious necessity of a strictly local configuration for predicate-argument relations: it won't be the case that verbs have to take arguments in local configurations but quite the opposite; argument structure *emerges* as the outcome of a repair strategy when heterogeneous {V, DP}-like sets (semantically {kiss(e) & Mary(y)}) are readjusted for convergence at the interfaces. The *configurationality* of predicate-argument relationships (*cf.* Hale & Keyser (2003), Uriagereka (2008)) is, thus, derived automatically.

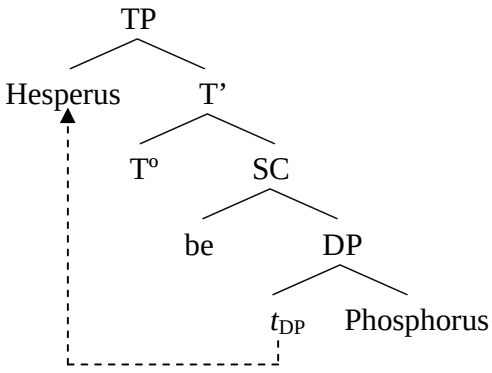
Furthermore, I will also show that the system can account for the opposite pattern; the lack of theta role assignment in some constructions like copulatives (*cf.* Hurford (2007)). Assuming that in a copulative construction like (5a) we have a Small Clause-like configuration (5b) with further raising of one of the DPs (5c) (*cf.* Moro (2000)), we can account for the fact that the DPs of these constructions lack any theta-role. None of the DPs but the phrase containing both of them will be merged with the copula, hence, no type shifting will be required for any of the DPs, which will make them not to be separate arguments of any verb.

(5a) Hesperus is Phosphorus.

(5b)



(5c)



Finally, I will extend this analysis to account for the problematic nature of the argument structure of constructions with *unsupported clauses* like those in (6a/b) (*cf.* Higginbotham (1983)).

(6a) I consider John a fool.
(6b) I found Mary in the library.