Some definitions (final version)

A grammar G consists of a pair of a set of lexical elements L and a set of operations O:

$G = \langle L, O \rangle$

A derivation on a numeration D_N is a pair:

a set of lexical elements drawn from L, called the Numeration N, and
an ordered n-tuple of phrase markers PM:

$D_N = \langle N, \langle PM_1, \dots, PM_n \rangle \rangle$

A derivation D_N is said to *converge* iff

1. PM_n contains no unchecked uninterpretable (*u*) features
2. PM_n contains no unchecked strong (*) features
3. PM_n contains no unvalued (:__) features
4. All elements in the Numeration have been Merged
5. For each adjacent pair of phrase markers $\langle PM_k, PM_{k+1} \rangle$ in D_N, there is an operation Ω such that $\Omega(PM_k, PM_{k+1}) = 1$.

Feature structures:

A lexical item *LI* has the following feature structure, given in three equivalent notations:

	category features	*inflectional features*	*selectional features*
LI	[ ]	[ ]	[ ]

LI	CAT […] INFL […] SEL […]	*LI*	[… ; … ; …]

Some examples:

see	V [-aux]	[ ]	*u*D | <TH>
v_{trans}	*v* [-aux]	*u*Infl:__ *u*□: __ *u*Case:ACC	*u*V, *u*D | <AG>
$to_{raising}$	T [-aux] Infl: Inf	*u*Clause-type:__ *u*□: __	[*uv*, *u*D*]
dog	N □: 3sm	[*u*Case:__]	[ ]

Operations:

Merge(□, □)

For any syntactic objects □, □, where □ bears an unchecked selectional feature F, and □ bears a matching categorial feature F,

call □ the *head* and
let Merge(□, □) = { □, { □, □}}
call □the *label* and
let F be checked (written ~~F~~), and
let □= □ □ □, where □ is the set of all unchecked non-inflectional features

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Adjoin(□, □)

For any syntactic objects □, □, where neither □ nor □ has any unchecked selectional feature,

call □ the *host*, and
let Adjoin(□, □) = { □, { □, □}}
call □the *label* and
let □= □

Move$_{\textbf{head}}$(X*, Y) (F* on probe)

If X is a head with a strong feature F*, Y a head with a matching feature F, and X c-commands Y, then

let X = {X, {Y, X}} and
let F* = ~~F*~~, and
let Y = <Y>

Move$_{\textbf{head}}$(X, Y*) (F* on goal)

If Y is a head with a strong feature F*, X a head with a matching feature F, and X c-commands Y, then

let X = {X, {Y, X}} and
let F* = ~~F*~~, and
let Y = <Y>

Agree(X,Y;F)

For any syntactic objects X and Y, where X bears a feature F with value Val(F) and Y bears a matching unvalued inflectional feature *u*F: , and X c-commands Y,

let Val(*u*F) = Val(F) and
if *u*F is weak, then let *u*F = ~~*u*F~~

Move$_{\text{phrase}}$(X*, Y) (F* on probe)

If X is a projection with a strong feature F*, Y a maximal projection with a matching feature F, and X contains Y, then
  let X = {X, {Y, X}} and
  let F* = ~~F*~~, and
  let Y = <Y>

Move$_{\text{phrase}}$(X, Y*) (F* on goal)

If Y is a maximal projection with a strong feature F*, X a projection with a matching feature F, and X contains Y, then
  let X = {X, {Y, X}} and
  let F* = ~~F*~~, and
  let Y = <Y>

Move$_{\text{phrase}}$(X*, Y*) (F* on both probe and goal)

If X is a projection with a strong feature F*, Y a maximal projection with a matching feature F*, and X contains Y, then
  let X = {X, {Y, X}} and
  let F* = ~~F*~~, and
  let Y = <Y>