

## Nodes and Features

### How the Multiple Grammar Perspective Predicts Stable and Unstable Dialects and the Order of Acquisition

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#### 1.0 Introduction

We think of dialects as exhibiting something called “variation”, shifts in grammar that seem to go in every conceivable direction. The dialect project at the Meertens Institute, according to Fred Weerman and Hans Bennis (this volume) has found 200 different Dutch dialects.

It cannot be that all variation is of the same stripe. Some features seem stable over generations and others seem to shift from speaker to speaker. Some are easily grasped by outsiders and others will escape an outsider’s control for a lifetime. Such large differences should tell us something about Universal Grammar, or rather, should be predicted by a good theory.

#### 1.1 Minimalist Refinements

Two particular forms of abstraction characterize modern minimalism: the absence of strict node labels (Collins (2002 )), and an abstract notion of Features not tied to particular modules: interpretable versus uninterpretable. These features motivate movement and serve to define the content of syntactic nodes. If these abstractions are

real, they should provide a natural means to capture dialect differences. We argue that they do.

We wish to add to that goal, however, another: how does a person represent several dialects at once? Are they separate grammars or do they “overlap” so that there is not massive redundancy. Most speakers can understand several dialects even if they do not speak them.

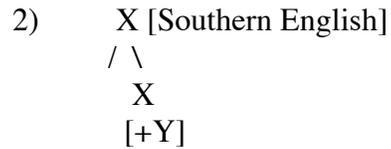
We will argue that tree-structure allows a very straightforward method to represent multiple dialects, or Multiple Grammars as recent theoretical work labels them (Kroch (1997) , Roeper (1999) Yang (2003)). . In fact, what is labeled Standard English is really a representation of several grammars with some redundancy that are compatible with a single tree. In addition, Feature variation captures what is unstable in dialects, precisely because it exhibits no tree-level variation.

## 1.2 Nodes and Features

We begin with the core ideas and then see how far we find straightforward support. We argue that while acquisition must determine the precise content of node labels in a tree, the Head feature will make that label stable, even if only found in a dialect, while associated features can vary. The claim then is:

- 1) A. Nodes are Stable
- B. Features are unstable

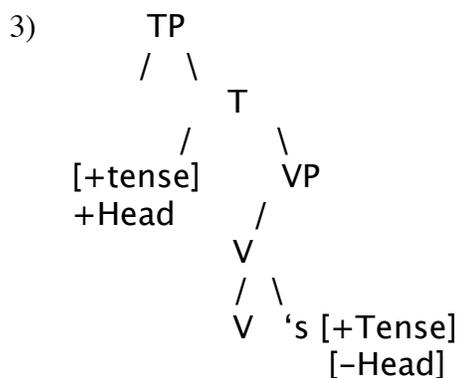
Or more precisely, Head-Node features must remain with the node, while added features can drop without changing the character of the syntactic tree. Thus if we have:



then the X feature is stable, because it essentially identifies the node, while the Y feature is subject to variation. easy change, inconsistency across and within speakers, uncertain intuitions.

Second the feature can carry a dialect diacritic like Southern English. This would amount to saying that this independent node appears only in this dialect. The Head feature, an interpretable feature therefore, could appear elsewhere as a “free rider” or an uninterpretable feature. Adger and Smith (2003) advance a similar approach to dialects and the status of Features.: “variation arises when a construction has the same interpretable features coupled with different uninterpretable features”

This kind of difference follows naturally from a proposal by Chomsky (1995) who argued that Tense features in English occurred under the VP and Verb nodes, not under a Tense node where they moved via Feature Attraction to check-off their feature.



Our hypothesis then for English would be:

- 4) a. Verb features will remain in English
- b. Tense features may show unstable dialect variation.

This is fact what happens in both dialect and Mainstream English. We find that /-s/ and /-ed/ are often dropped in AAE (See Green (2004) and references therein) and they are frequently dropped as a Speech error.

(Deevey (2000)). We find in AAE:

- 5) he run (=he runs)  
John eat the hotdog (=he ate the hotdog)

It is also no accident that the lower /-s/ is linked with a generic interpretation and not a real, anchored present tense. Its deletion therefore has little impact upon interpretation.

## 2.0 Stable Dialects

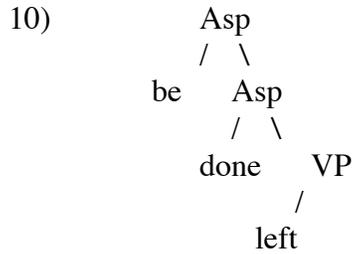
Now what would be a Stable Dialect difference? One example is precisely the Habitual Be form that is widely discussed:

- 6) He be playing baseball = he plays baseball habitually

Its status as a separate node is clear when negation or Tag questions are present which require do-insertion to carry Tense:

- 7) He don't be playing baseball  
He be playing baseball, don't he





[= he usually has already left]

Recursion is an important sign of a productive grammar and the claim that the Head feature of the node is real.

We now make several predictions, namely, that

I. the Aspectual part of the Aspect node is Stable,

but that non-Head information

II. is Unstable or variable

In fact, non-dialect speakers seem to represent habitual BE with ease, understand it, and identify it with a dialect.

However another dialect feature Remote Past BIN does not obviously occupy an independent node and therefore is far more opaque to the non-dialect speaker:

11) I BIN married = he has been married for a long time,

This is easily misunderstood by a Mainstream speaker as a Tense marker with the implication that it is no longer true.

Another example shows the same distinction:

12) Dee BIN running for 30 minutes. a) \_ 'For a long time, Dee has had the habit of running for 30-minute stretches'.

The Mainstream speaker takes this to be an ordinary progressive with a missing

Tense (has been running). Our tree-based analysis easily predicts this instability for the Mainstream speaker precisely because it is ambiguous with the Tense node. There are many other subtleties here which are germane to our view (See Green (2004) and Green and Roeper (to appear), but we continue now to outline the larger claims.

## 2.1 Non-recursion as a property of Stable Nodes

One hallmark of the acquisition process is what is known as overgeneralization.

It occurs classically with examples like:

- 13) a. drowned
- b. feetses
- c. did left

where Tense or plural is marked morphologically in two ways. A single Feature receives multiple expressions. These markings occur within a given node (drowned) or for two independently acceptable positions as a form of Agreement (did left).

We predict, however, that it will not occur if an extra node is called for and that is precisely correct (\* = non-occurring):

- 14) \*John must will play baseball

is never recorded in the acquisition literature as a mistake to which children are prone or that occurs at all.

However where another node exists, precisely this overgeneralization can occur. It has long been recorded (going back to Menyuk (1969)) that children may say:

- 15) "Must John will play baseball?"

Why is this possible? It is because both positions exist independently. (CP) and ModalP

and therefore the child feels that it should be possible to fill them both.

Our analysis of AAE leads now to a similar prediction. Where an Aspect Node carries the same habitual information, as in BE and BIN, it is impossible to have recursion (Green (2004)):

16) \*He be BIN left early.

even though I believe that one could construct a plausible meaning for it.

[in the remote past, he habitually left early]

This again, stands in contrast to overgeneralization via double Tense-marking (“did left”).

## 2.2 English and Multiple Grammars

A number of authors have now argued that a speaker and a child in the process of acquisition will maintain Multiple Grammars and allow one to dominate if it dominates either by virtue of frequency (Yang (2002)) or by evidence of productivity as with recursion.

We can now ask: How does a person manage the substantial overlap between grammars and what prevents them from swimming into each other and becoming impossible to discriminate? We cannot answer all of this question, but we may have an answer to an important part: whatever can be represented as an independent node on a tree will remain stable. A classic case is the particle construction, with seemingly redundant positions in English which appears to be in transition from a separable connection to the verb:

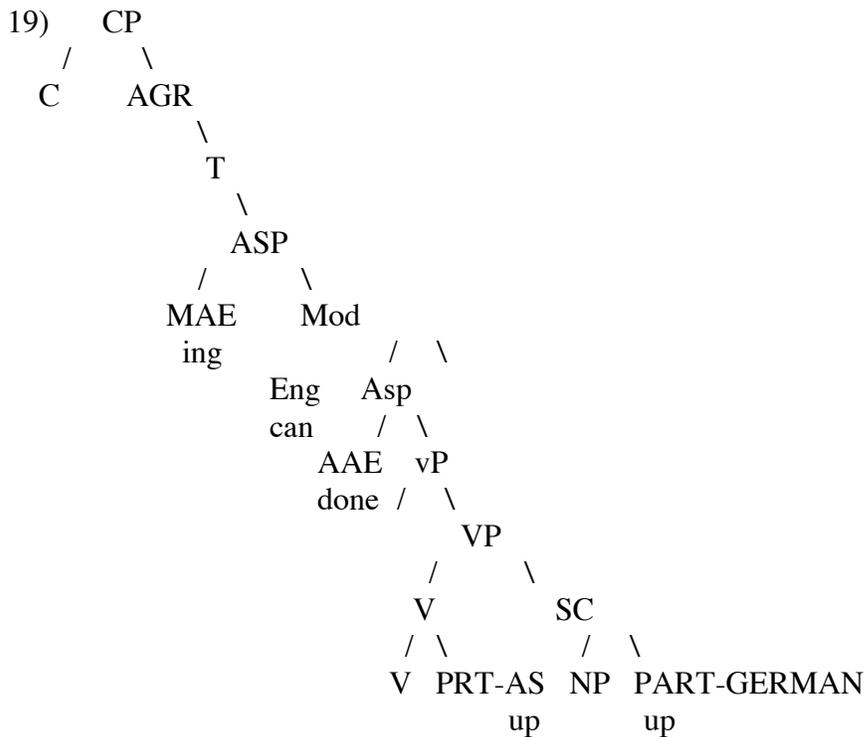
17) pick the ball up

to an inseparable Anglo-saxon variety:

18) pick up the ball

What is notable is that if this change is occurring, it is occurring very slowly. Why? The answer is that each particle position occupies a separate position in a tree, and therefore remains stable and, to some degree, attracts slightly different semantics. It is surprising because, given the obvious redundancy, one might expect a change of this kind to be rapid rather than slow.

As an exercise, let us maximize the variety of grammars that are captured in a single tree. Consider these parts of the trees as reflecting primarily one or another grammar family: German (GER), Anglo-Saxon (AS), African-american (AAE), Mainstream American (MAE), Latinate (Lat):



Will you can have done thrown me up the ball up to me

Ger                      AAE                      AS AS                      Ger      Latinate

We have labeled the initial CP nodes as German because it can motivate V2 in quotation structures like and express Tense overtly:

20) “Nothing” said Bill

And we have labeled the PP to me as Latinate because it is reliably used with Latinate verbs. This is an extreme characterization of what we feel to be largely parts of Standard English—with of course an exception for the AAE Aspect phrase. The dative appears to be a reflection of Anglo-Saxon since it occurs with AS verbs.

Once again, interestingly, it can carry further dialect variation: it has a usage as a non-reflexive in a Southern dialect (part of AAE as well)

21) I am going to cook me up eggs

Here we have what is an unstable dialect feature: non-reflexive benefactive dative. It has a slightly different meaning from:

22) I am going to cook myself some eggs

where the reflexive indicates the recipient, but without the special benefactive flavor. Since the dative is a feature of AS already, its special role in Southern dialect is unstable and less clear to the Mainstream speaker who might waver in judging part of Mainstream English. The semantics of why the coreference exists without the reflexive marking is, of course, an interesting independent topic.

This state of affairs follows directly from our hypothesis that there is only a Feature difference [+benefactive, -reflexive] and not a node difference. It follows that benefactive dative remains a shadowy dialect feature while two positions for the particle,

despite its redundancy, is perceived as part of a single grammar, although we can see it as a dialect split of modern English from German.

### 2.3 Case Study: Acquisition of Possessive

Our theory provides a lens through which one can examine many stages of acquisition. Consider this case drawn from the dissertation of Galasso (1999 ). The first generalization is that children first use a Default Accusative case instead of Possessive. Here are characteristic examples:

23) Me: I want me bottle. Where me Q-car? That me car. Have me show. Me turn.

Me cat. Me pen. (2;6-2;8)

You: No you train. It's you pen. It's you kite. It you house? (3;2)

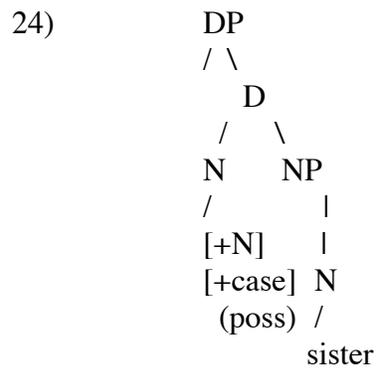
Him: I want to go in him house. Him bike is broken. It's him house.

Mine: Mine banana. Mine bottle. Mine car. Mine apple. Mine pasta (2;4)

The same phenomenon can be found among SLI children where several other modules (Wh-movement, reflexive, etc) can be advanced, but Case assignment remains deficient or delayed:

"Me sister name Dawne. Her give me Dad a lobster, a two lobster, Me Mom put in here, cook them, forgot to take them eyes out....." (Roeper et al (2001))

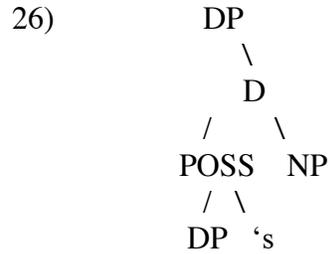
Default accusative, we assume, is in effect not to have any case-marking at all. However, note that this case does not require a special node for reference. The Determiner Head is filled by the lexical information onto which, in some grammars, a further possessive case is attached, a non-Head feature. In English the node is filled, but no extra case feature is demanded or present:



What happens when the shift to an adult grammar occurs? Here our argument demands that an independent node arise. In fact, it seems that one does. The notable fact about possessives is that they can apply to an entire phrase:

25) the man in the corner's hat

--a form that is radically ungrammatical in other languages---is perfectly acceptable in English and produced by 6 yr olds. What this requires is that there is a separate POSS node that is a sister to an NP:



Now the stage is set for recursion which is precisely what occurs:

27) My father's brother's dog's collar

Children do not realize the recursive properties of possessives immediately as we would predict and as this dialogue (among many) reveals (From Roeper (to appear)):

MOTHER: What's Daddy's Daddy's name?  
 SARAH: uh.  
 MOTHER: What's Daddy's Daddy's name?  
 SARAH: uh.  
 MOTHER: What is it?  
 What'd I tell you?  
 Arthur!  
 SARAH: Arthur! Dat my cousin.  
 MOTHER: Oh no, not your cousin Arthur.  
 Grampy's name is Arthur.  
 Daddy's Daddy's name is Arthur.  
 SARAH: (very deliberately) No, dat my cousin.  
 MOTHER: oh.  
 What's your cousin's Mumma's name?  
 What's Arthur's Mumma's name?  
 SARAH: uh.  
 oh.  
 MOTHER: Thinking?  
 [Sarah nods]

So what have we found? The child initially is able to drop possessive /'s/ because it is first analyzed as an additional case feature. Then it must be re-analyzed as a node which permits recursion. The first stage is only possible because the crucial feature is not a Head feature.

### 3.0 Acquisition Splitting

It is a common assumption that children seek to Maximize Falsifiability. One manifestation is to define something in such a narrow way that it is immediately modified by new evidence.

If an English and German child both hear:

28) the boy

den Jungen

and both associate features for: singular, accusative, masculine with the article, then the German child will be correct from the outset. The English child however, will quickly hear examples like:

29) “the girl” => drop gender feature

“the girls” => drop number feature

“the girls are” => drop accusative feature

and be led to the correct grammar. Note, however, that no change in the tree occurs, instead it is a stable node with shifting features associated with it.

A natural alternative to the maximization of features and their systematic deletion comes would be the capacity to split features into two nodes. Here we have an important move which, following our theory, would be

difficult to reverse but may occur a number of times.

Hollebrandse and Roeper (1997) provide an analysis of splitting as a natural part of the acquisition process where a child begins by considering Tense to be exclusively on a verb when –ed occurs and then, when they hear did, re-analyzing –ed as either occurring on or destined to be moved to the Tense node. The same occurs for the realization of make as a causative, which occurs after if it first linked lexically to causative verbs like break. In other words, the child learns John broke the bowl before they generate John made the bowl break.

### 3.1 L2 Diagnostic

Now let us use the same kind of analysis to see if we can crack open a longtime observation about L2. It has frequently been noticed that L2 speakers do not honor the constraint on progressives that limit them to action verbs:

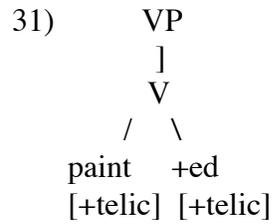
- 30) a. “I am believing what you say”
- b. “I am knowing the answer”

Why would this small problem occur so reliably and so persistently, immune to correction even by explanation? If deep processes are at work, then it is no surprise.

Laura Wagner observed that children initially analyze the past tense –ed morpheme as being linked to telic verbs. Thus children will use painted while they still say “he walk” to mean “he walked”.

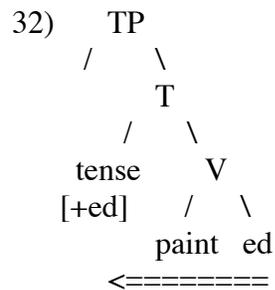
Following our model, if we argue that the child is 1) attaching –ed to the V node, and 2) seeking Agreement between the telic properties of the verb and the affix, which fits maximizing falsifiability, then the child will set the

stage for splitting.



If the child hears didn't paint, then the Tense node is established

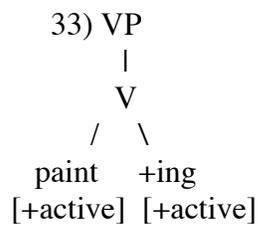
as higher than the verb and the verb will move to that node to satisfy the Tense feature.



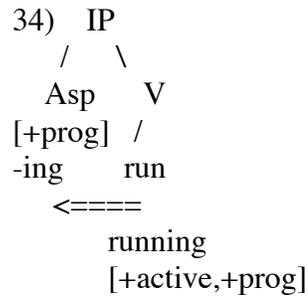
When the child hears walked, the telic feature is then dropped from the representation.

The case with progressive –ing is the same, but the restriction, we argue holds.

The child hears initially generates –ing on verbs and links them to the active Feature and therefore statives are not allowed.



Then the child reanalyzes the *-ing* as a part of the be+ing aspect marker within the IP node (which will carry a [+progressive] feature:



Lexical restriction [+active] on [-ing] is carried forward. Nothing causes a change in the feature.

The L2 speaker does not pass through this stage, but rather projects [-ing] as a progressive marker directly into an Aspect node that is higher than the verb. This would follow most naturally from the fact that their own L1 has IP nodes already, therefore the projection is immediate. Therefore the lexical restriction is never established under Agreement because the [-ing] is never in a configuration that would justify that feature via agreement. Instead the attracting Feature is simply [+V] and not [+V,+active]. Thus we have J. found that our theory captures the microscopic detail of L2.

#### 4.0 Conclusion:

We have pursued a simple theoretical distinction—Nodes versus Features-- made possible by the refinements of modern minimalism. It allowed us to bifurcate dialect variation into Stable ones linked to Nodes, and unstable ones linked to Features. We

made the strong claim that current grammars simultaneously represent the cross-currents of several dialects if they can be mapped onto a single tree. The analysis led to a theory of how to capture certain developmental steps: a shift from a Feature representation to a Node representation.

Many other stages in acquisition and distinctions among dialects may submit to a splitting analysis. For instance, Elma Blom and Frank Wijnen (2005) provide evidence that the child gradually shifts to a modal interpretation. We can model that shift as first being in terms of a feature on a lexical item, then a feature on a verb node, and finally acquisition splitting, allowing an independent Modal P within the IP.

Chomsky has remarked on occasion that technical solutions should be re-analyzed into “leading ideas”. Our proposal is, one hopes, a step toward extracting the leading ideas within the abstractions of minimalism.

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