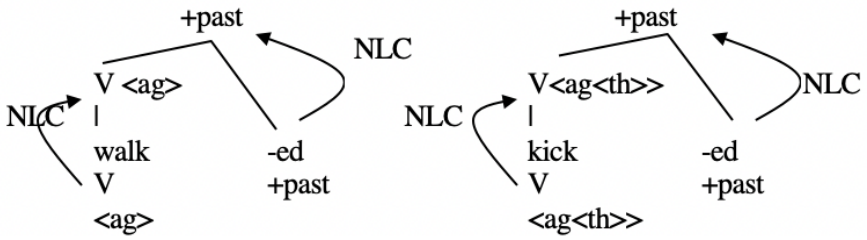
Inflection and Syntax

1. Inflection and WSTs

- Syntactic context is crucial to the determination of inflectional morphology. The raises an important question: how to incorporate the syntactic information relevant to inflectional morphemes into WSTs?

- The answer is not obvious. If we treat inflectional affixes as the head of a WST then important information from the 'nonhead' fails to be transmitted to the whole.

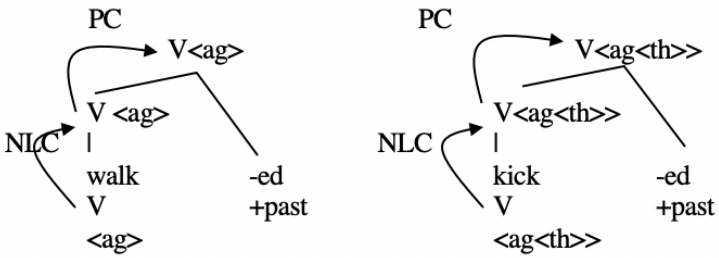
  1) Inflection as head of WST



  - We could posit that the features of the non-head are also included in the inflectional morpheme, but this entails a great deal of redundancy. For example, we'd need to posit a different past tense morpheme for every possible argument structure configuration.
  - Alternatively, we could posit something like radical substitution linking so that the whole feature structure of the non-head always becomes part of the feature structure of the head. But this would undermine the notion of headedness.

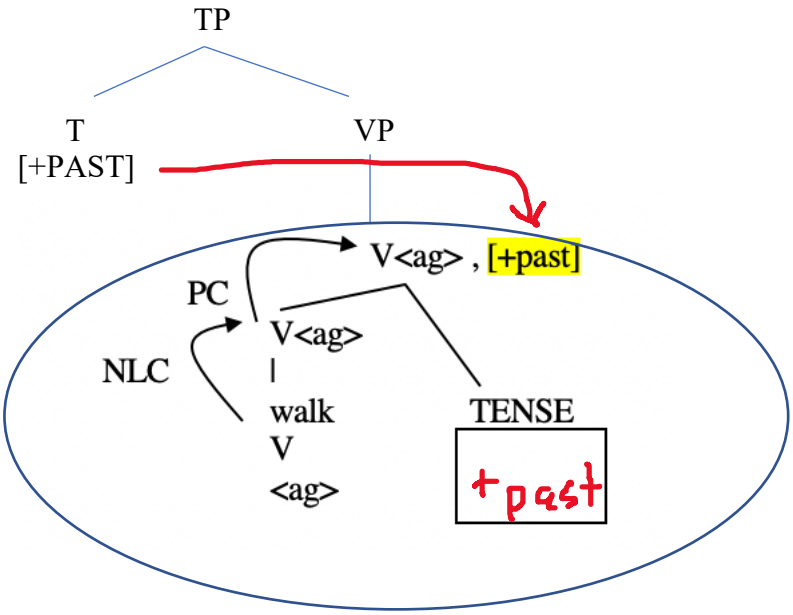
- This suggests that inflectional morphemes should be introduced as modifiers. But if inflection is a modifier then we fail to capture the important connection between inflectional morphology and syntactic distribution, on the assumption that what syntax 'sees' is just the featurse of the highest node.

  2) Inflection as modifier



- So then how can the features of an inflectional morpheme become part of the whole? We will adopt the hypothesis that they are actually **assigned** to the whole in syntax itself.

3) Assignment of features by syntax

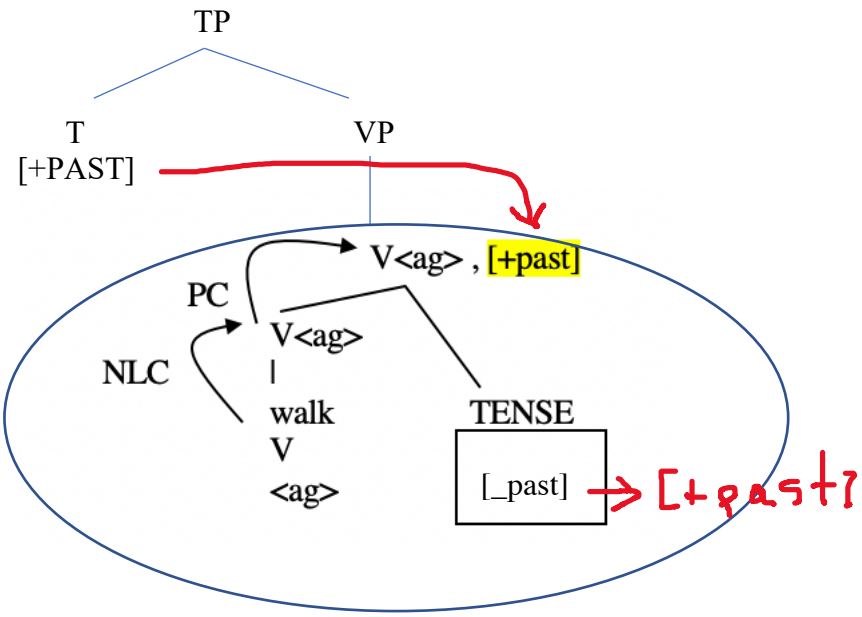


- This hypothesis has huge consequences:
  - — On this view, inflectional features are not introduced by inflectional affixes themselves.
  - — Instead, inflectional affixes acquires a feature specification contextually, from their dominating node.
  - — Since the form of an inflectional affix depends on its feature specification, this means the form of an inflectional affix is indeterminate until its features are acquired in the syntax..
  - — We will need a procedure to map abstract inflectional affixes (abstract= consisting only of feature bundles) to their forms.

- On acquiring a feature specification:
  - — We will say that inflectional affixes introduced **unvalued features**, which then receive whatever value is assigned syntactically to their dominating node.

4) a. [_past] --> [+past]

b.



2. Vocabulary insertion

- How do inflectional affixes receive their form? We will say that the features on inflectional affixes receive their form, sometimes also called **exponence**, via a procedure called **vocabulary insertion**:

  5) Vocabulary insertion: an operation that takes as its input an abstract feature bundle on a terminal node in the syntax/WST and assigns it an exponent by **matching** it to a **vocabulary item** in the language's **vocabulary list**.
  - **Vocabulary items** are associations between feature bundles and exponents

  6) Vocabulary items (aka **vocabulary insertion rules**) schematized features defining context of insertion ↔ exponent

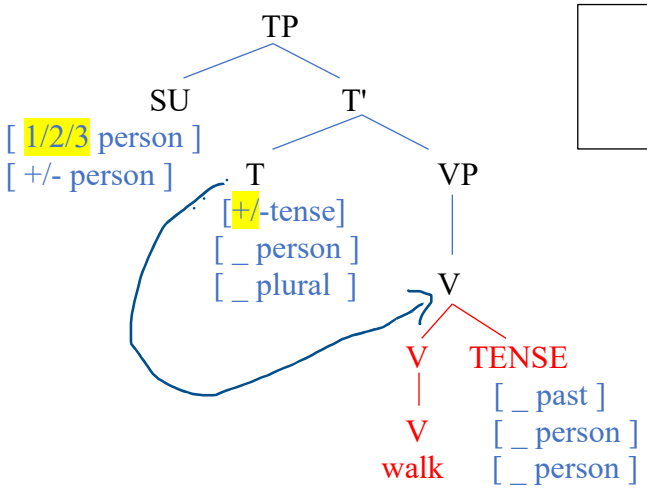
  7) Vocabulary list and vocabulary insertion rules for English tense exponents (to be revised)
  [3.sg, -past] ↔ /-z/
  [+past] ↔ /-d/

- STEPS: .
  - Start at the top of the list and work downwards
  - When a match is found, insert the corresponding exponent

- "Matching" does does not require identity. It obeys a principle known as the **subset principle**

8) **Subset principle: t**he exponent of a vocabulary item is inserted into if the item matches all or a subset of the grammatical features specified in the terminal morpheme.
   - Insertion does not take place if the Vocabulary item contains features not present in the morpheme.
   - Where several Vocabulary items meet the conditions for insertion, the item matching the greatest number of features specified in the terminal morpheme must be chosen.

Practise: English tense forms



[3 person, -plural, -past] ↔ /-z/
[+past] ↔ /-d/

	Present	Past
1.sg		
2.sg		
3.sg		
1.pl		
2.pl		
3.pl		

- When we posit features in the insertion context of a vocabulary item we are making a **hypothesis** that must be supported by all of the data at our disposal.

3. Disjunctive rule ordering

- The "list" plays an important role in this system because it is **disjunctively ordered.**
  - **Disjunctive**: means that if one rule applies, no other rule applies
  - **Ordered**: means that each of the rules is inspected in turn (until one applies)

- Disjunctive ordering means that even if more than one vocabulary item on the list is a potential match, only the first one encountered will be inserted.
  - In other words, the order of the list is an important part of a morphological analysis in this system. A proposed ordering is a hypothesis about the grammar and should be tested/supported against data.

9) Crucial ordering in a vocabulary list

a. T[+past] ↔ -t/{$\sqrt{\text{BEND}}$, $\sqrt{\text{LEAVE}}$,...}__
b. T[+past] ↔ -Ø/{$\sqrt{\text{HIT}}$, $\sqrt{\text{QUIT}}$,...}__
c. T[+past] ↔ -ed

(10) *leave, left, *leaved*
*quit, *quitted*

4. Underspecification and syncretism

- Given the subset principle, insertion contexts can be **underspecified**, meaning they do not have to have all of the features specified by a syntactic environment. This can result in the same form being a suitable match for multiple environments, giving rise to **syncretism**.

10) Syncretism: a phenomenon where a single vocabulary item serves as exponent for more than one feature combination.

11) Spanish pres. tense conjugation **Vocabulary List**

p/n	**form**
1s	habl-o
2s	habla-s
3s	habla-Ø
1p	habla-mos
2p	habla-**n**
3p	habla-**n**

12) Norwegian strong adjectives **Vocabulary List**

	-neut	**+neut**
-pl	-Ø	-t
+pl	-e	-e

- Syncretism is different from **homophony**, where two distinct vocabulary items happen to have the same form, as in (12).

13) [$_V$ 3.sg, -past] ↔ /-z/
[$_N$ +plural] ↔ /-z/

- Syncretism often reflects **natural classes**, as determined by a feature (or features) common to all of the insertion contexts, e.g. [+plural] in the Spanish example. However, if syncretism arises from **total underspecification** then the set of environments in which a single vocabulary item appears need not constitute a natural class. A totally underspecified vocabulary item is known as an **elsewhere form** and it is ordered last in a vocabulary list.

14) Ugaritic prefix conjugation (Pardee 1997, via Embick 2015)

p/n/g	**form**
1s	ʔ-ktb
2s.masc.	**t**-ktb
2s.fem.	**t**-ktb-n
3s.masc.	y-ktb
3s.fem.	**t**-ktb
1d	(n-ktb)
2d.masc.	**t**-ktb-(n)
2d.fem.	N/A
3d.masc.	y/**t**-ktb-(n)
3d.fem.	**t**-ktb-(n)
1p	n-ktb
2p.masc.	**t**-ktb-(n)
2p.fem.	(**t**-ktb-n)
3p.masc.	y/**t**-ktb
3p.fem.	(**t**-ktb-n)

15) Ugaritic vocabulary items

[$_{Agr}$-1,-2,+masc,-pl] ↔ y-
[$_{Agr}$+1,+pl] ↔ n-
[$_{Agr}$+1] ↔ ʔ-
elsewhere ↔ t-