

The correspondence problem in syntactic reconstruction

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Workshop on Syntactic Reconstruction

One topic. Many questions.

- Is it possible to reconstruct syntax? n/a
- Is it possible to reconstruct? Yes
- Is it worth reconstructing syntax? Yes
- Can cognates exist in syntax? Yes
- Can the methods of lexical-phonological reconstruction be applied to syntax? Partially

Outline of the talk

- The syntactic reconstruction debate
- A methodology for reconstructing syntax
- Case study: Old Norse *-sk*

Background to the debate (1)

- Comparative phonological reconstruction has had a long and successful history.
- However, *syntactic* reconstruction in the past has been more controversial...
 - Delbrück (1900), Watkins (1976): tentative
 - Lehmann (1974): circular argumentation
 - Harris & Campbell (1995, ch. 12): a defence of syntactic reconstruction. But how successful?

Background to the debate (2)

- Two main steps in reconstruction:
 1. Find correspondences
 2. Decide what to reconstruct as the proto-value
- Lightfoot (2002) calls both steps of syntactic reconstruction into question:
 - Due to the nature of syntactic variation, it is impossible to establish correspondences in syntax (2002: 119-121)
 - We do not have a ‘rich theory of change’ to help us decide what to reconstruct as proto-form (2002: 126-7)

The ‘directionality problem’

- *pace* Lightfoot, directionality does exist in morphosyntactic change, in the form of grammaticalisation (e.g. word > clitic > affix).
- Unidirectionality is (rightly) controversial (cf. Campbell 2001, Campbell & Harris 2002)
- But ‘grammaticalization is a real phenomenon’ (Lightfoot 2006: 177)
- It follows that we can (sometimes) use directionality to decide on protoforms in syntax, as we can in lexical-phonological reconstruction.

Other criteria

- for deciding what form to reconstruct:
 - **Synchronic typology:** we shouldn't postulate a system that appears to violate absolute universals, e.g. a final complementiser in a VO language (cf. Dryer 1992: 102)
 - **Economy:** All else being equal, adopt the hypothesis which posits the minimal number of diachronic changes to get the attested data.
- The second step of reconstruction is thus no more problematic in syntax than in lexical-phonological reconstruction.

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Finding correspondences (1)

- Phonological theory views variation across items in phonological inventories as variation in features.

$$/t/ = \begin{bmatrix} +coronal \\ -voice \\ -cont \\ +ant \\ +dist \end{bmatrix}$$

Finding correspondences (2)

- The ‘Borer-Chomsky Conjecture’ approach to syntactic variation (cf. Borer 1984):
 - All parameters of variation are attributable to the features of particular items (e.g., the functional heads) in the lexicon. (Baker 2008)

$$T = \begin{bmatrix} \text{tense:past} \\ u\text{Case:nom} \\ u\text{Num:} \\ u\text{Pers:} \end{bmatrix}$$

Finding correspondences (3)

- If we adopt this approach for reconstruction purposes:
 - We know that lexical items are transmitted and can be cognate, so lexical items can be taken as one of the units of correspondence for syntax
 - Isomorphism:
 - phonological reconstruction reconstructs sounds through their context of appearance in lexical items
 - syntactic reconstruction reconstructs lexical items through their context of appearance in sentences

The correspondence problem (1)

- **Problem:** Lexical-phonological reconstruction involves hypothesizing correspondence sets in which *both* the lexical item and the sounds that constitute its phonological form are cognate
- **DOUBLE COGNACY CONDITION:** In order to form a correspondence set, the contexts in which postulated cognate sounds occur must themselves be cognate.

The correspondence problem (2)

- Parallels as established so far:
 - sounds \approx lexical items
 - lexical items \approx sentences
- But sentences, in the vast majority of cases, *cannot* be cognate in the traditional sense:
 - for two items to be cognate requires there to be a diachronic identity between those items and a single item in the proto-language, in the sense of transmission across generations
- The Double Cognacy Condition thus cannot hold of syntactic reconstruction.

Alleviating the problem

- We can, however, look for distributional patterns of individual lexical items: if they are in complementary distribution, they may be derived via lexical split.
- Where overt phonetic material is present, this provides clues as to cognacy; we can then reconstruct the syntactic properties of individual lexical items (cf. Willis 2011).
- Semantic similarity is a third heuristic.

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Old Norse *-sk*

- In Old East and West Nordic texts a ‘middle voice’ verbal ending can be found

	Active	Middle
Sg. 1	<i>kalla</i>	<i>kollumk</i>
2	<i>kallar</i>	<i>kallask</i>
3	<i>kallar</i>	<i>kallask</i>

(from *kalla* ‘to call’)

- Primarily a reflexive, reciprocal or anticausative marker, depending on the verb it attaches to (Ottósson 1992)

Old Norse *-sk*: analysis

- Clitic (e.g. Faarlund 2004)
- ...or suffix (e.g. Ottosson 2008)?

Arguments for clitic status	Arguments for affixal status
<ul style="list-style-type: none">• Violates Mirror Principle: voice morpheme is outside tense and agreement morphemes <p><i>-kalla-ð-i-sk</i> call-PAST-3SG-VOICE (Eythórsson 1995: 241)</p>	<ul style="list-style-type: none">• Highly selective• Triggers stem allomorphy• Semantic idiosyncrasies: <i>-anda</i> 'to breathe' <i>-andask</i> 'to die' (Ottósson 1992: 68)

- I will tentatively assume affixhood here.

Old Norse *-sk*: comparanda

- No such ending exists in other early Germanic languages.
- However, the other languages do have a reflexive pronoun with a phonologically similar shape, e.g.:

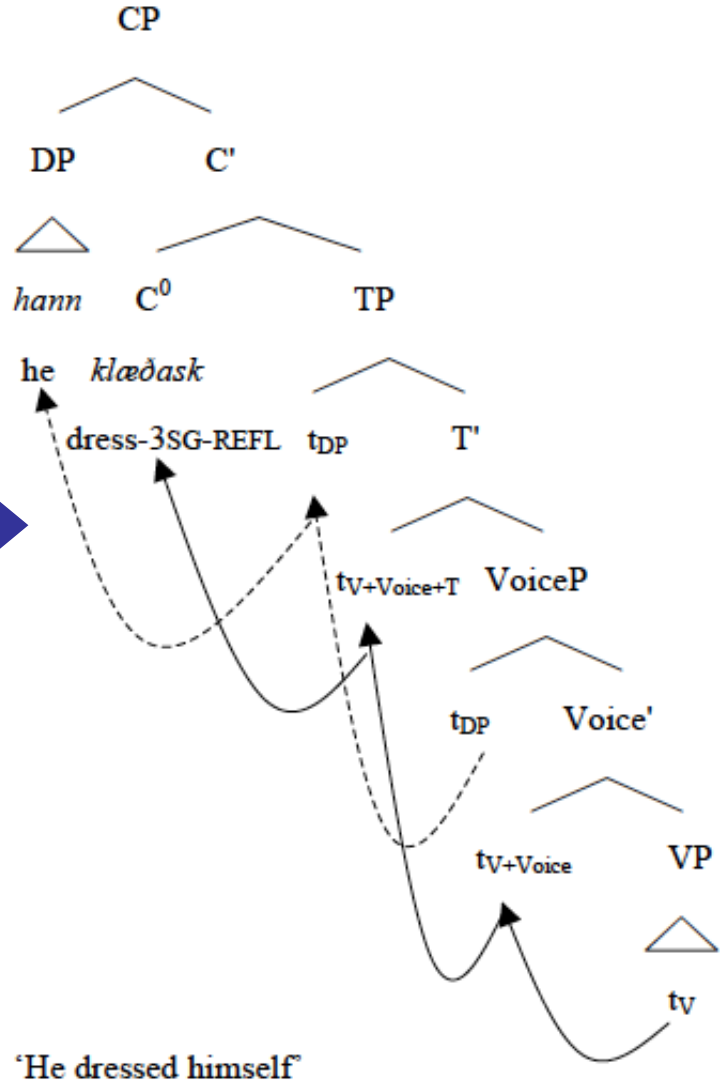
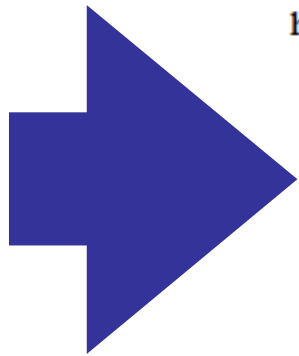
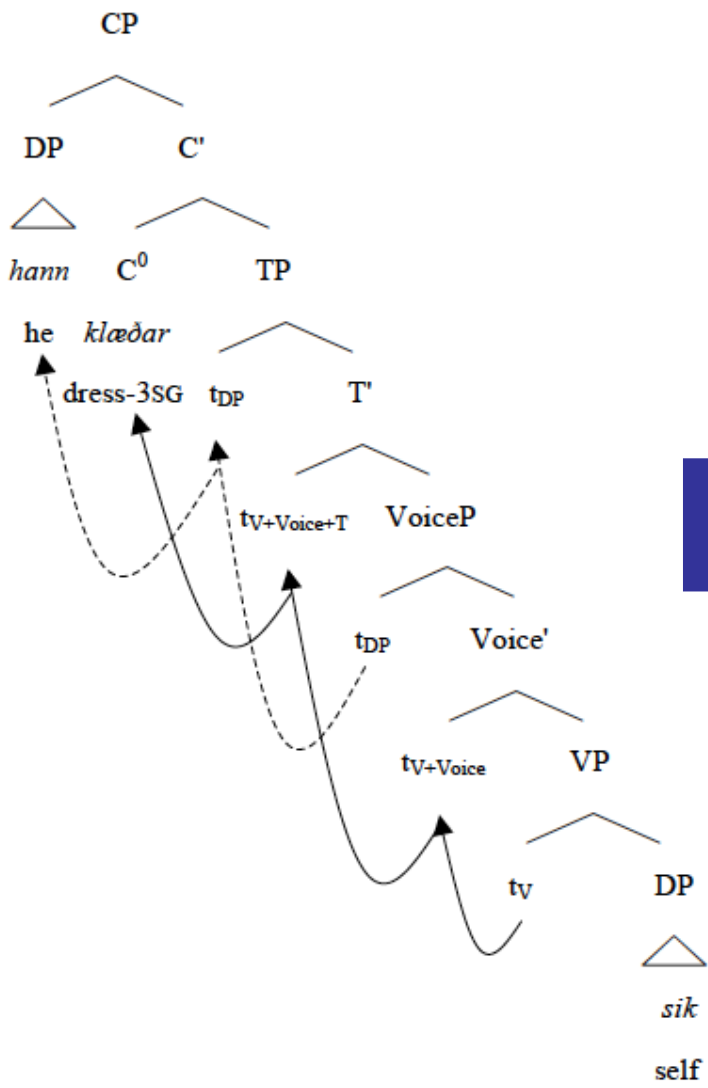
– Gothic	<i>sik</i>
– Old High German	<i>sih</i>
– Old Norse	<i>sik</i>

(3rd person singular forms)

Old Norse *-sk*: correspondence

- On the basis of phonological, semantic and distributional criteria we can posit that the Old Norse *-sk* ending is cognate with this pronoun.
- Since both items were retained, in formal terms we are dealing with a ‘lexical split’ analogous to the phonemic split often found in sound change.
- The syntactic context for the reanalysis as verbal ending is simply string-adjacency to the finite verb.

Old Norse -sk: reanalysis



Old Norse *-sk*: consequences

- Simple example of syntactic reconstruction; accepted for over 100 years
 - (e.g. by Nygaard 1905, Gordon 1938, Faarlund 2004, Ottosson 2008)
- Trivial?
 - But its very straightforwardness weighs heavily against Lightfoot's (2002a: 120) contention that reconstruction of syntax is possible only in cases of identity

Conclusions

- Syntactic reconstruction is **qualitatively different** from phonological reconstruction.
- This is because **strings of sounds are transmitted**, whereas **strings of lexical items are not**.
- However, **we can still construct hypotheses** in a principled manner, at least to some extent.

Thank you for listening!

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