

Reconstructing the syntax of proto-languages: can syntactic theory inform philology?

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1. The syntactic reconstruction debate

Syntactic reconstruction in the past has either been extremely tentative...

- Delbrück (1900: 83): based largely on Sanskrit, suggests that Proto-Indo-European was normally verb-final, but makes few other claims about the syntax of the protolanguage

...or based on false or dubious premises

- Lehmann (1974): reconstruction of PIE as Subject-Object-Verb based on strong theory of typological consistency and change towards 'harmony'
- Harris & Campbell (1995, ch. 12): reconstruction based on 'cognate sentences' - but sentences cannot really be cognate, in the sense of diachronic identity (see box 3)

Lightfoot (2002) claims that syntactic reconstruction is essentially impossible:

- Due to the nature of syntactic variation, it is impossible to establish correspondences in syntax (2002a: 119-121)
- We do not have a 'rich theory of change' to help us decide what to reconstruct as proto-form (2002a: 126-7)

The rest of this poster outlines such a method based on an isomorphism between phonology and syntax, discussing where the isomorphism fails to hold (see Walkden 2009 for detail).

2. Phonological vs. syntactic variation

What is syntactic variation, and how is it encoded?

Modern phonological theory views variation across items in phonological inventories as variation in feature matrices.

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

Compare the Borer-Chomsky Conjecture of Minimalist theory, which states that all syntactic variation is lexical:

- 'All parameters of variation are attributable to the features of particular items (e.g., the functional heads) in the lexicon.' (Baker 2008a: 353)

T might be: $\begin{bmatrix} \text{tense:past} \\ u\text{Case:nom} \\ unum: \\ upers: \end{bmatrix}$
(Adger & Smith 2005: 170)

3. The correspondence problem

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

Like sound change, syntactic change is regular: a change affects a given lexical item in a given syntactic context across the board, not just in a few sentences.

Problem: Sounds are transmitted as items stored in an inventory, as are lexical items. But sentences are not. So we don't have a 'fossil record' of changes in syntax as we do for phonological change.

We can, however, look for distributional patterns of individual lexical items: if they are in complementary distribution, they may be derived via lexical split. The case study of the Old Norse 'middle voice' ending in case study 1 is an example of this being put into practice.

4. The directionality problem

Once correspondences have been postulated, how can we decide which form was the original one in the case of non-identity?

Pace Lightfoot (2002a,b), pathways of change do exist in morphosyntax, for example:

content item > grammatical word > clitic > affix

(Hopper & Traugott 2003: 7). Although not necessarily exceptionless, this cline is at least more common than the reverse, and can be used to guide reconstruction: postulate more syntactic independence rather than less.

Also useful:

- **Synchronic typology:** we shouldn't postulate a system that appears to violate absolute universals, e.g. a final complementiser in a VO language (Dryer 1992: 102)
- **Economy:** All else being equal, adopt the hypothesis which posits the minimal number of diachronic changes to get the attested data.

Case study 1: the Old Norse ending -sk

In Old Norse texts a 'middle voice' verbal ending can be found, with reflexive, reciprocal and passive functions:

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

(from *kalla* 'to call')

Úlfrinn gapði ákafliga ok fekksk um mjök
wolf.DEF gaped greatly and got.REFL about much
'The wolf gaped terribly and thrashed around'
(Prose Edda, 34)

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>	(third person singular forms)
Old High German	<i>sih</i>	
Old Norse	<i>sik</i>	

On the basis of both phonological and semantic 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.

Case study 2: West Germanic multiple topicalisation

The older West Germanic languages are predominantly V2 in root clauses. But V3 is also found in Old English:

æfter his gebede he ahof bæst cild up (AHTH II, 28)
after his prayer he lifted the child up

And in early Old High German:

bidhiu ih hepfu mina hant ubar sie (Isidor, 220)
therefore I raise my hand above them

In all such cases of V3, the second constituent seems to be a definite DP or a pronoun, i.e. **discourse-given**. Walkden (2009) analyses this variation in terms of a split CP (Rizzi 1997), with verb-movement to Fin° and the second constituent inhabiting SpecTopP.

$[_{\text{ForceP}} \text{bidhiu} [_{\text{FamP}} \text{ih} [_{\text{FinP}} \text{hepfu} [\dots]]]]$

Old Saxon does not exhibit this sort of V3 pattern:

Thar fundun sea enna godan man (Heliand 463)
there found they a good man

V3 must therefore either have been lost in OS or innovated in OHG and OE. But, on the basis of the tree in the inset box, we know that OHG and OE cannot have undergone a shared innovation if Old Saxon did not also undergo it. The alternative - parallel innovation - fails on the criterion of economy: we would need to posit two unrelated, identical

changes. We should therefore reconstruct the availability of V3 for Proto-West Germanic.

More speculatively: the SOV runic inscription on the Golden Horn of Gallehus is classically analysed as evidence for lack of verb-movement in Proto-Germanic (Eythórssón 1995: 181):

ek hlewagastiz holtijaz horna tawido
I Hlewagastiz Holtijaz horn made

But might it not in fact be a case of V3 with the horn in SpecTopP and verb-movement to Fin°?

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Conclusion

- Syntactic reconstruction is **qualitatively different** from phonological reconstruction.
- This is because **strings of sounds are transmitted**, whereas **strings of lexical items are not**.
- However, **it is possible to reconstruct syntax** in a principled manner, at least to some extent.

Thank you for reading!

Acknowledgements: Thanks to Alastair Appleton, Theresa Biberauer, Elliott Lash, Chris Lucas, Neil Myler, Elena Pala, Ian Roberts, Sheila Watts and my supervisor David Willis for discussion and constructive criticism of the issues raised in this poster. Any remaining errors are mine alone. Funding provided by

