

Climbing trees: syntax-semantics alignment in re-analysis of West Germanic modal verbs

This paper makes two main claims on the basis of comparisons between English, German and Dutch. Firstly, languages tend to show alignment in syntactic and semantic height of modals (although this alignment is not absolute). Secondly, we predict that, due to learner bias for syntax-semantics isomorphism (c.f. Musolino 1998, i.a.), semantic reanalyses typical of modal change are accelerated in languages such as English where modals have undergone V-to-I reanalysis (e.g. Lightfoot 1979) compared with languages in which modals occupy a lower syntactic position (e.g. Dutch); i.e. in which syntactic re-analysis has not taken place. As such, syntactically ‘high’ modals are more likely to be used with semantically high (epistemic) readings than syntactically ‘low’ modals, which tend to have low (root) readings.

Context: Modals have either a root or an epistemic interpretation: root modals are generally subject-oriented and pertain to laws/obligations (1), whilst epistemic modality pertains to speaker’s attitudes/beliefs and/or evidence available at time of utterance (2).

(1) *You must_{root} live by the lakeshore* (...in order to apply for a sailing permit).

(2) *You must_{epistemic} live by the lakeshore* (...because I often see you walk along the docks).

This distinction is captured by Hacquard’s (2006) analysis in which modal interpretations arise from semantic (LF) event binding. LF compositionality provides two positions for modals: a high position for epistemics, scoping over propositions (~INFL) and a low position (above the event domain (~VP)) for roots. From circa 1400CE to present, English modal verbs have undergone semantic re-analysis from full “premodal” verbs (e.g. *want, owe, wish*) to root modals and later to epistemics. This sequence of change (*Content*>*Root*>*Epistemic*) is robustly attested cross-linguistically (Bybee et al.1994, a.o.). The semantic changes along this path are frequently linked to the syntactic cycle of grammaticalization, in which content verbs associated with the VP domain are reanalysed as functional IP/CP items. In this vein, English modals have shifted from subcategorizing for VP to being base-generated in IP (Lightfoot 1979 et seq.). Modals tend therefore to ‘climb’ both semantic and syntactic ‘trees’.

Syntactic-semantic height correlation: It is widely observed cross-linguistically that epistemic modals tend to be syntactically higher than root modals (e.g. Cinque 1999). Following syntactic reanalysis, English modals have become increasingly restricted to epistemic readings (Tagliamonte & D’Arcy 2007); higher syntax appears to correlate with higher semantic readings. In contrast, German and Dutch cognate modals occupy a lower position in the syntax (above VP) and more commonly have root readings, thus exhibiting low-low syntax-semantic alignment (author redacted). The syntactic status of the German/Dutch modals reflects the fact that they have not (yet) undergone the *root* > *epistemic* shift observed in English.

Proposal: Using comparative diachronic and synchronic evidence from West Germanic languages, this paper argues for a reanalysis-based account of alignment between syntactic height and semantic interpretation of modals. We claim that semantic change is driven by erroneous root-to-epistemic overextensions on the part of the L1 learner (Cournane 2014), and further argue that syntactic reanalysis expedites these semantic changes. We propose that once syntactic V-to-I reanalysis has occurred, isomorphic pressure for high syntax with high semantic readings, and low with low, leads to alignment between syntactic height and semantic scope at LF.

References: Bybee, J., R.D. Perkins & W. Pagliuca. 1994. *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World*. University of Chicago Press. Cinque, G. 1999. *Adverbs and the Universal Hierarchy of Functional Projections*. Oxford: OUP. Cournane, A. 2014. In search of L1 evidence for diachronic reanalysis: mapping modal verbs. *Language Acquisition* 21(1). Hacquard, V. 2006. *Aspects of Modality*. PhD Thesis, MIT. Musolino, J. 1998. *Universal Grammar and the acquisition of semantic knowledge*. PhD Thesis, University of Maryland. Lightfoot, D. 1979. *Principles of Diachronic Syntax*. Cambridge: CUP. Tagliamonte, S. & A. D’Arcy. 2007. The modals of obligation/necessity in Canadian perspective. *English World-Wide* 28 (1). 47-87.