

Word Order Change and Hawkins's Prepositional Noun Modifier Hierarchy.
(Oral/Poster. Themed session, Typological hierarchies in synchrony and diachrony)

This paper examines Hawkins's Prepositional Noun Modifier Hierarchy (PNMH; Hawkins 2004). The PNMH states that in prepositional languages, the longer the modifier, the less likely it is to be pre-nominal. This also leads to an implicational hierarchy of modifiers: if a prepositional language has pre-nominal possessive nouns, then it will also have pre-nominal adjectives; if it has pre-nominal relative clauses, then all the other modifiers will be pre-nominal. This can be summarized as: Dem > Adj > PossP > Rel (if a prepositional language preposes one of those modifiers, then it preposes the others further up the hierarchy). However, I argue that Hawkins's hierarchy is inaccurate when WALS data on word order is used from Dryer (2011). For example, it incorrectly predicts that prepositional languages with GenN order will have AdjN order (in fact of the 52 languages with prepositions and GenN order, 37 of them across nine different families have NAdj order); and that languages with AdjN, NDem order should have postpositions (whereas in fact 22 out of those 25 languages have prepositions).

I advocate an alternative hierarchy in this paper, the 'Head-Initial Hierarchy': NRel > VO, NAdj > NDem > AdpN, NGen > NProGen > VS. For example if a language has noun-demonstrative word order then it is likely to have noun-adjective word order; and if it has noun-genitive order then it is likely to have noun-demonstrative order. Data from WALS to support these and the other elements of the implicational hierarchy will be given, and argued to hold more strongly than Hawkins's hierarchy (e.g. there are 475 languages with NDem, NAdj compared with 25 with NDem, AdjN; and 282 with NGen, NDem compared with 78 with NGen, DemN; Dryer 2011 Chapters 85, 86, and 87).

While Hawkins (2004) argues that the PNMH reflects the nature of processing (Hawkins 2004), I argue that the Head-Initial Hierarchy reflects two common historical situations: i) word orders changing at different rates, especially in situations of language contact; Greenberg (1969) showed that relative clause-noun orderings, verb-object and adjective-noun orderings are among the first to change in situations of language contact before noun-demonstrative, noun-adposition and noun-genitive orderings (and these former orderings may be particularly susceptible to syntactic transfer in bilingual acquisition, e.g. Yip and Matthews 2000). ii) SOV languages often acquire SVO word order and other head-initial word orders, much more commonly than the other way around (e.g. Gell-Mann and Ruhlen 2011). Many modern SVO languages come from families which were SOV, and have retained more conservative head-final orderings such as GenN, making the ordering GenN, VO relatively common (122 languages); while the rare type NGen, OV (32 languages) and other violations of the Head-Initial Hierarchy are primarily found in the less common situation of families which were VO becoming OV (e.g. Tigre in the Ethiopian Semitic family, Kairiru and Manam in the Oceanic languages of PNG; Dryer 2011 Chapters 83, 86). These two historical tendencies taken together result in languages tending to have degrees of head-initiality along the implicational hierarchy given. This hierarchy is thus argued here to emerge from directionality of word order change and stability of word orders in language contact, rather than from processing principles.

Dryer, M. 2011. Chapters 82, 83, 85, 86, 87, 88, 90. In Dryer, M. and Haspelmath, M. (eds) *The World Atlas of Language Structures Online*. Munich: Max Planck Digital Library.
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