

# How much ‘Free’ is the Free Word Order in Sanskrit?

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The phrase ‘free word order’ in the context of Sanskrit poses computational challenges for building efficient parsers. How much ‘free’ is this free word order? The First person to address this problem is J F Staal (1967). He suggested a model in analogy with Calder mobiles. In this model, the sisters under each node can be freely transposed. Gillon(1996) worked on this problem further by examining sentences from Classical Sanskrit corpus giving the model a strong empirical base. Nevertheless, he has noted some cases of discontinuities within clause boundaries within the framework of Phrase-structure syntax.

In Indian tradition, the concept of ‘sannidhi’ imposes certain constrains on the word order. If the words are represented on a straight line and the relations are shown by arcs joining the words, then the sannidhi constraint states that the links should not cross each other. This constraint thus leads to a nested parentheses model for parsing, each pair of parentheses representing a clause. The tradition is silent however on the word order between the various arguments. This silence may be interpreted as: the arguments can be transposed freely within a pair of parenthses. This is exactly what the Calder Mobile model suggests.

We carried out similar empirical experiment as has been carried out by Gillon, examining the Calder mobile model. However, instead of Phrase Structure syntax, we follow the Dependency framework. We examined all the ślokas of Śrimad Bhagvad Gītā and found that the prose order and the anvaya orders are just the transpositions of sister nodes with an exception of two relations viz. viśeṣaṇa and kriyāviśeṣaṇa. It is observed that within prose order, the viśeṣaṇa and kriyāviśeṣaṇa violate the constraint.