

one right, the tags in a window ranging from three left to three right, and the IOB suggestions for the previous two tokens.²

3) In the reverse WPDV model, the direction of chunking is reversed, i.e. it chunks from the end of each utterance towards the beginning.

4) In the R&M WPDV model, Ramshaw and Marcus's type of IOB-tags are used, i.e. starts of chunks are tagged with a B-tag only if the

¹Cf. <http://ilk.kub.nl/>.

²For unseen data, i.e. while being applied, the IOB suggestions used are of course those suggested by the model itself, not the true ones.

frequent phrase type, the NP, and especially on one weak point: determination of the start position of NPs. I use separate WPDV models for each of the following cases:

1) Should a token now marked I-NP start a

³Cf. van Halteren (2000a). Also, the difference between training and running (correct IOB-tags vs model suggestions) leads to a low expected generalization quality of hill-climbing. I therefore stop climbing after a single effective step, but using an alternative climbing procedure, in which not only the single best multiplications/division is applied per step, but which during every step applies all multiplications/divisions that yielded improvements while the opposite operation did not.