Taking underspecification seriously

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Abstract of invited talk:

A major attraction of unification-based formalisms is that they offer the possibility of treating vagueness differently from ambiguity. We do not have to say that ”sheep” has two lexical entries, one for the singular and one for the plural; we can give it one entry that leaves its number unspecified. But as more categories are involved in the syncretism, unification no longer provides an easy solution. So German adjectives in -en, French first-conjugation verbs in -e, and innumerable other cases of morphological neutralization, give rise to large numbers of variants for a word which parsers then multiply by large numbers of variants for other words to give an exponential result. One answer to the problem that this poses is to bring in heavy machinary in the form of contexted unification (Kaplan & Maxwell). Another would be for programmers to rebel against the view, so often taken for granted, that this is their problem, and throw it back to the linguists. This talk will be an intial exploration of this proposal, based on a well known logic programming trick attributed originally to Colmerauer and disseminated by Mellish.