

Comment on Yde Venema

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One of the characteristics of linear logic has given inspiration to quite a few researchers in the field of substructural logics: the loss of structural rules is made good by reintroduction of them for marked formulas only. Linear logic is only one of the logics in the substructural landscape, and the structural rules it deals with are contraction and weakening. It has turned out that it is not a trivial matter how this idea of linear logic should take shape in more general settings. In fact, no canonical answer has been given up till now; in particular, Yde explicitly denies any final authority in this paper.

Let me sketch one of the main difficulties. The question whether we may contract a formula A or weaken with a formula A depends naturally on the formula A itself. Contractability and weakenability have the face of one-place relations. Permutation is different: *two* formulas A and B are permuted. Are they permuted by virtue of properties of A or B or any non-trivial combination of properties of both? The policy of marking formulas and licensing permutation for marked formulas leads to either of one ‘trivial’ extremes: one marking is enough to license the permutation or permutation is allowed only if all formulas involved are marked. Permutation is most naturally a two-place relation. When you work with markings of single formulas, the original idea undergoes some torsion, when applied to structural rules that involve more than one formula. The case of associativity is even more acute: associability is a three-place relation.

This paper can be classified as dealing with the approach of marking single formulas. Let us call this approach the mono-marking paradigm. Within this paradigm, the paper constitutes a milestone. A clear account of the nature of marking, driven by natural semantical considerations, and a tight connection with the proof theory (cut-elimination, embeddings), contribute to the construction of a solid framework in which the majority of hybrid substructural logics find a well-understood place.

It remains to be seen whether the categorial grammarians will stay content with the mono-marking approach for permutation and associativity. Up till now I did not catch any signal that they are not. But it would not surprise me if there would arise an urge for more general approaches soon.

However this may turn out, a paper like the present one, giving a neat survey of the mono-marking approach, could not have been missed.