"Against generalized quantifiers (and what to replace them with)"

Abstract:

The theory of generalized quantifiers faces some challenges which are seldomly addressed. First, if the quantifying expressions in "Most A B", "No A B", "At least three A B" are taken to denote functions from the sets A and B into truth-values, then we cannot easily explain why these functions depend on the set of As which are not B and on the set of As which are also B, but never on the set of Bs which are not A. Secondly, if as proposed in DRT quantified NPs denote generalized quantifiers, whereas indefinite NPs or pronouns don't, then we cannot easily explain why the distributional patterns of pronouns, indefinite NPs and quantified NPs are so similar. Thirdly, if quantifying expressions are generalized quantifiers, then we cannot easily keep the characterisation of the context-independent assignment of semantic roles in e.g. "Three professors examined at least twenty students" separate from the characterisation of the context-dependent determination of the scope relations, and therefore we cannot distinguish context-independent linguistic knowledge from context-dependent non-linguistic knowledge.

I argue for an analysis of quantified NPs which aims to (dis)solve these problems. Instead of analysing quantified NPs as denoting generalized quantifiers, I propose (i) that the semantic contribution of quantified NPs is similar to the semantic contribution of indefinite NPs and pronouns in DRT, namely to introduce a (set) variable and some conditions on the variable, and (ii) that there are different ways of evaluating a relation between two or more sets of entities. Since the quantifier conditions (like the conditions introduced by indefinite NPs in DRT) do not refer to a scope set, the problem of explaining why the truth of "Q A B" never depends on the set of Bs which are not As does not arise. Moreover, since quantified NPs and indefinite NPs make a similar type of semantic contribution, this can be viewed as motivating their similar distributional patterns. And thirdly, since the set variable can be assigned a semantic role independently of how the condition on the set is evaluated or satisfied, we can keep the characterisation of context-independent linguistic knowledge separate from the characterisation of context-dependent non-linguistic knowledge.