The first constituent in noun-noun compounds (N1) appears to be unaccessible for pronominal anaphora (e.g. Postal 1969). However, experimental findings have challenged this constraint. We present three psycholinguistic experiments with German compounds suggesting that distinct factors can contribute to render the N1 accessible for anaphora. The investigated factors are: A - animacy of the N1 (animate vs. inanimate, e.g. dog bowl vs. plastic bowl); B - semantic relation (have vs. for, e.g. can stock vs. can opener); C - spatio-temporal contiguity (STC) (+STC vs. -STC, e.g. car accident vs. car insurance); D - compound structure (root vs. synthetic compounds, e.g. roof garden vs. roof greening)

Exp. 1 (sentence completion) tested for the factors A and B. Participants completed sentence fragments starting with a pronoun with the N1 as antecedent. Our prediction that in the conditions 'animate' and 'have' there will be more N1-references was borne out; in addition, we found an interaction of both factors. Exp. 2 tested for the factors C and D in the same paradigm as Exp. 1. We predicted that N1-references increase in the conditions '+STC' and 'synthetic compound'. While the prediction for the main effect of factor C was borne out, the effect of factor D ran against our prediction. Further we conducted an eye-tracking during reading experiment focusing on the apparently subtle factor D (synthetic vs. root vs. monolexeme). This time the prediction concerning factor D was borne out.

Our data highlight the interplay of different factors that have to be integrated by processing models. The interactions provide us with a better understanding of how this integration might work, and that the effect of subtle structural factors might be buried beneath world-knowledge factors. Finally, we want to discuss how our results can be brought in line with theoretical frameworks (e.g. Marantz 1997).