Verb Clusters and the Semantics of Head Movement

Background: Bobaljik & Wurmbrand (2005) argue for an analysis of German long passives according to which the embedded object undergoes raising to the matrix clause to receive case from matrix T. The crucial piece of evidence in support of this view is the emergence of obligatory wide scope of the object in this configuration. Under B&W’s analysis, the embedded clause in (1a) is a vP and the object receives accusative case inside it. It may hence have low scope with regard to the matrix verb. In the long passive in (1b), by contrast, the embedded clause is a VP and the object must move to the matrix clause to get case. B&W correlate this obligatory case-driven raising with wide scope.

(1) a. weil alle Fenster zu öffnen vergessen wurde
   ‘since it was forgotten to open all the windows’ [\textit{forget} \gg \forall]
   b. weil alle Fenster zu öffnen vergessen wurden
   ‘since it was forgotten to open all the windows’ [\textit{*forget} \gg \forall; \forall \gg \textit{forget}]

The pervasiveness of matrix scope: Closer scrutiny reveals that wide scope in long passives is much more widespread. The contrast in (2) demonstrates that the indirect object \textit{allen Studenten} ‘all students’ can have low scope if the direct object receives accusative (in (2a)) but invariably takes scope over \textit{vergessen} ‘forget’ if the direct object receives nominative (in (2b)).

(2) a. weil den Fritz \textbf{allen Studenten} vorzustellen vergessen wurde
   since the.nom Fritz all.dat students.dat to.introduce forgotten was
   ‘since it was forgotten to introduce Fritz to all students’ [\textit{forget} \gg \forall]
   b. weil der Fritz \textbf{allen Studenten} vorzustellen vergessen wurde
   since the.nom Fritz all.dat students.dat to.introduce forgotten was
   ‘since it was forgotten to introduce Fritz to all students’ [\textit{*forget} \gg \forall; \forall \gg \textit{forget}]

This pattern even generalizes to adjuncts. The scope of \textit{in jedem Zimmer} ‘in every room’ correlates with the case of the embedded object (indicated by agreement):

(3) a. weil \textit{in jedem Zimmer} Äpfel zu essen vergessen wurde
   since in every room apples.acc to eat forgotten was
   ‘since it was forgotten to eat apples in every room’ [\textit{forget} \gg \forall]
   b. weil \textit{in jedem Zimmer} Äpfel zu essen vergessen wurden
   since in every room apples.nom to eat forgotten were
   ‘since it was forgotten to eat apples in every room’ [\textit{*forget} \gg \forall; \forall \gg \textit{forget}]

Thus, every element of the embedded clause takes wide scope in long passives. B&W’s analysis is unable to capture the contrasts in (2) and (3) precisely because it attributes the wide scope in (1b) to case-driven raising. Neither the indirect object nor adjuncts depend on case-assignment from the matrix clause. We conclude that the wide scope in long passives is not due to case.

Adjacency and scope: Not all instances of long passives lead to wide scope of embedded quantifiers. In particular, it only does if the two main verbs are adjacent to each other, as they are in (1)–(3). If the infinitival verb is topicalized, low scope is possible. Extraposition patterns in the same way.

(4) [Allen Studenten vorzustellen] wurde der Fritz schon wieder vergessen
    all.dat students to.introduce was the.nom Fritz yet again forgotten
    ‘it was yet again forgotten to introduce Fritz to all the students’ [\textit{forget} \gg \forall]

All the data discussed so far can be summarized in terms of the generalization in (5).
We take this to follow from a general prohibition against two lexical heads within the same ApplP introducing the indirect object but no \textit{v} verb will semantically take scope over the higher verb as well. This is schematized in (7):

\[ X^c \{\text{introduce} \} \Rightarrow \{\text{introduce} \} \land \text{theme}'(e) \land \text{goal}'(e) = x \]

\textbf{Application:} Consider the structure of (2b). Here the lower clause consists of a VP and an ApplP introducing the indirect object but no \textit{v} verb. The result is the complex head \([v [\text{introduce} \text{ Appl}] \text{ forget}]. This head and its parts are interpreted as in (8):

\[ \text{introduce} \mathcal{P}_{\text{introduce}}^y \mathcal{L}_{\text{introduce}}^y \mathcal{Y}_{\text{introduce}}^y \mathcal{X}_{\text{introduce}}^y \]