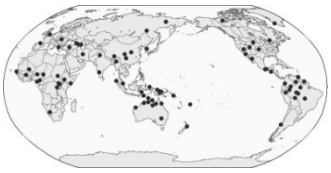
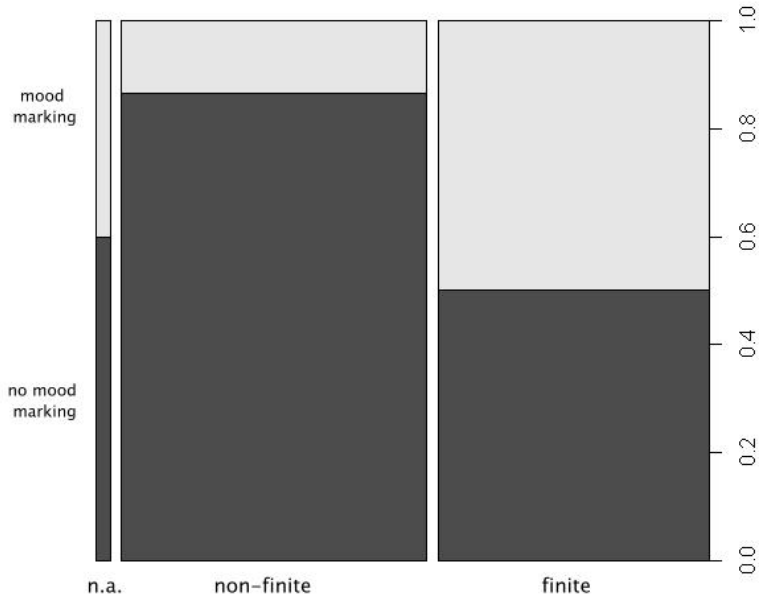


A Typology of Purpose Clauses
Karsten Schmidtke-Bode (2009)
Amsterdam, Philadelphia: John Benjamins

Appendix 6: Inferential statistics

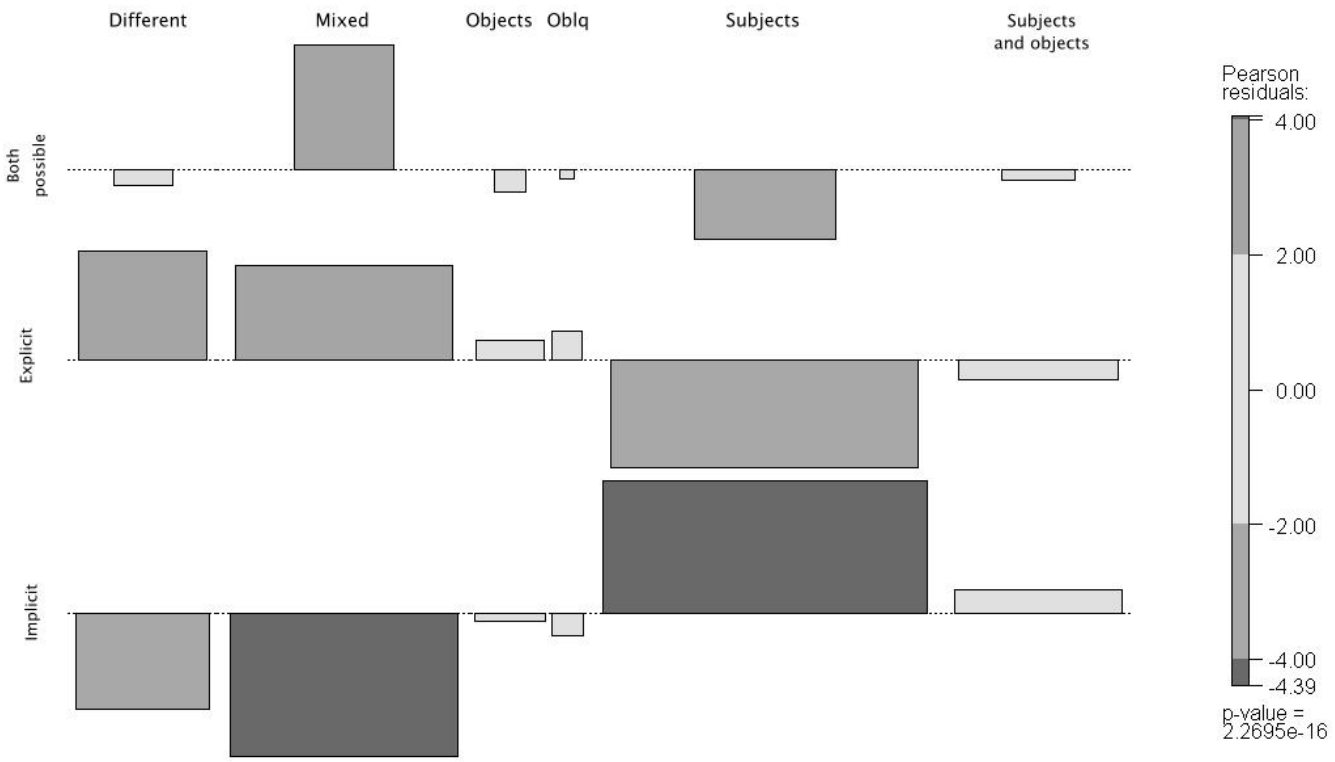
This document assembles all graphs from the book that display the results of inferential statistical analysis.

*Figure 8 (§3.2.2): Spine plot for the association of finiteness and overt mood marking**



*Spine plots are essentially scaled bar charts, i.e. the heights of the bars display the conditional relative (or proportional) frequencies of overt and absent mood marking, respectively (hence the range between 0.0 and 1.0 on the right-hand side of the diagram). The widths of the bars correspond to the relative frequencies of finite, non-finite and n.a. forms in our sample. The general logic behind spine plots is thus to plot, for two categorical variables x and y, P(y | x) against P(x) (cf. also Hummel 1996). This design will be used frequently in the following analyses.

*Figure 9 (§3.3.1): Association plot for co-reference relations of purposive subjects**



*Association plots, implemented as assoc in the *R* package `vcd`, allow for straightforward visualization of residual analysis (cf. Meyer et al. 2003, 2006). In particular, they indicate how the difference between observed and expected frequencies in each cell (i.e. the respective residual) contributes to the overall χ^2-value of a contingency table. The shadings reflect which residual values are individually significant. According to Meyer et al. (2006: 27), residuals are "approximately standard normal", which implies that residuals between $0<|x|<2$ are not individually significant (light grey shading), residuals between $2<|x|<4$ are significant at $\alpha=.05$ (medium grey shading), and residuals from $|x|>4$ are significant at $\alpha=.0001$(dark grey shading).

Figure 11 (§3.4.1): Correlation between structural type of marker and constituent order (N=196)

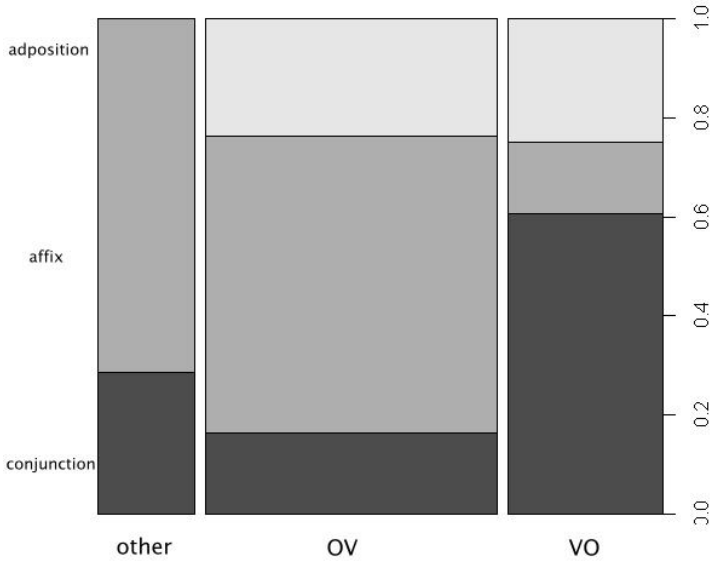


Figure 12 (§3.4.1): Correlation between structural type of marker and its position in the clause (N=196)

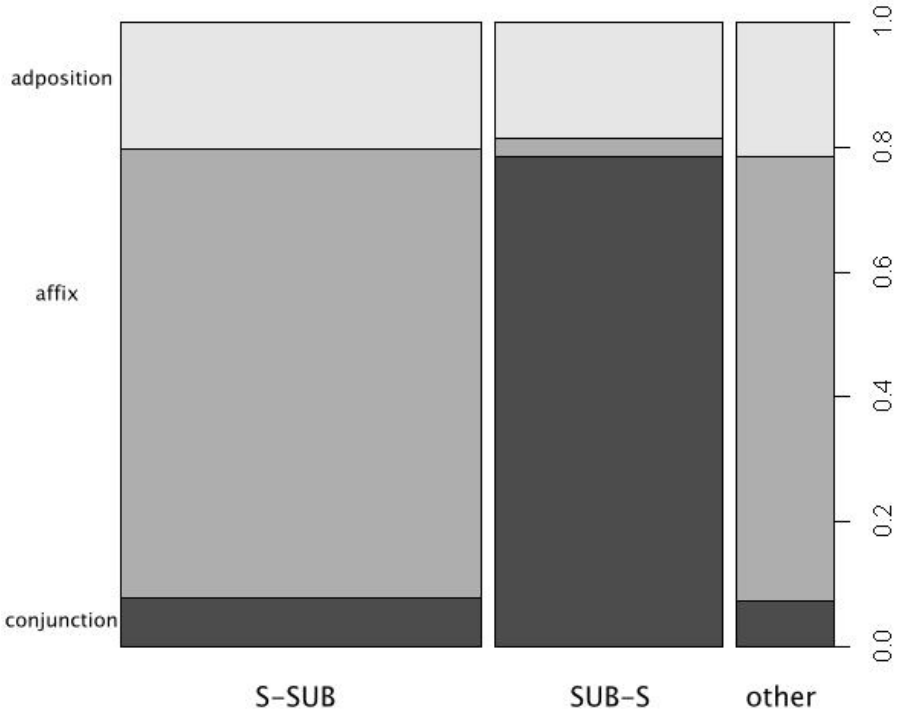
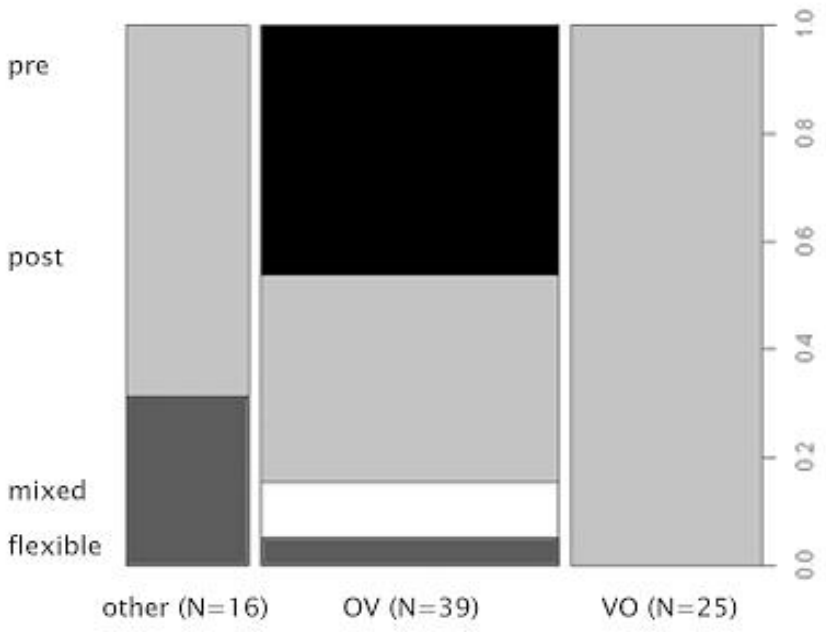
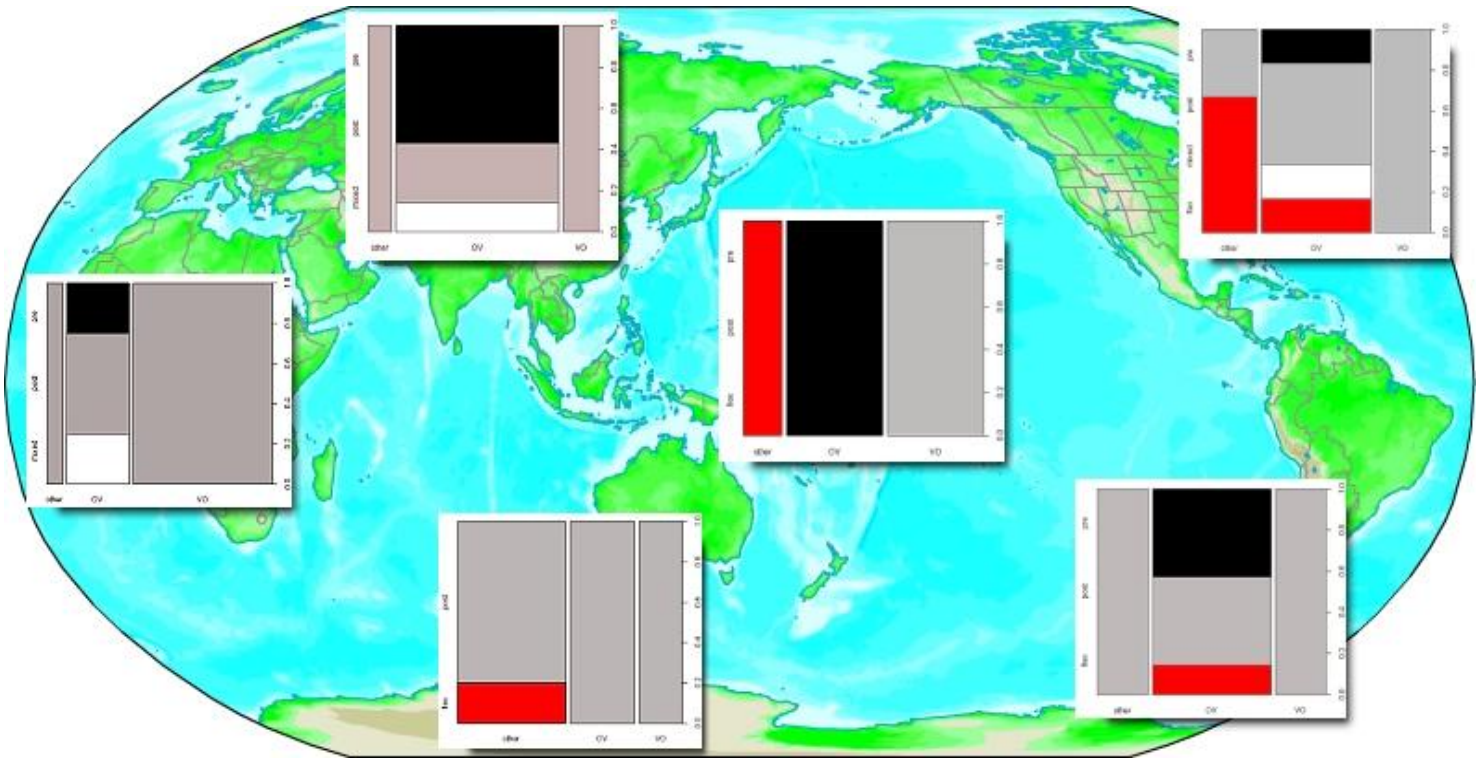


*Figure 20 (§3.5.1): Basic constituent order and the preferred position of purpose clauses (N=80)**



*The positioning patterns correspond to the shadings in the following way: preposing = black; postposing = light grey; mixed = white; flexible = dark grey.

*Figure 21 (§3.5.1): Geographical distribution of significantly skewed positioning patterns**



*In order to enhance the readability of this graph, North America and Mesoamerica were conflated into one areal category. Each of the individual spine plots conforms to the design of Figure 20 above. Specifically, the order of the bars from left to right is always 'other'-OV-VO. The shadings are black at the top for preposing, (light) grey for postposing, white for mixed ordering patterns, and red at the bottom for flexible position.

Figure 23 (§3.5.2): Major correlations between the positions of the primary marker and the purpose clause (N=218)

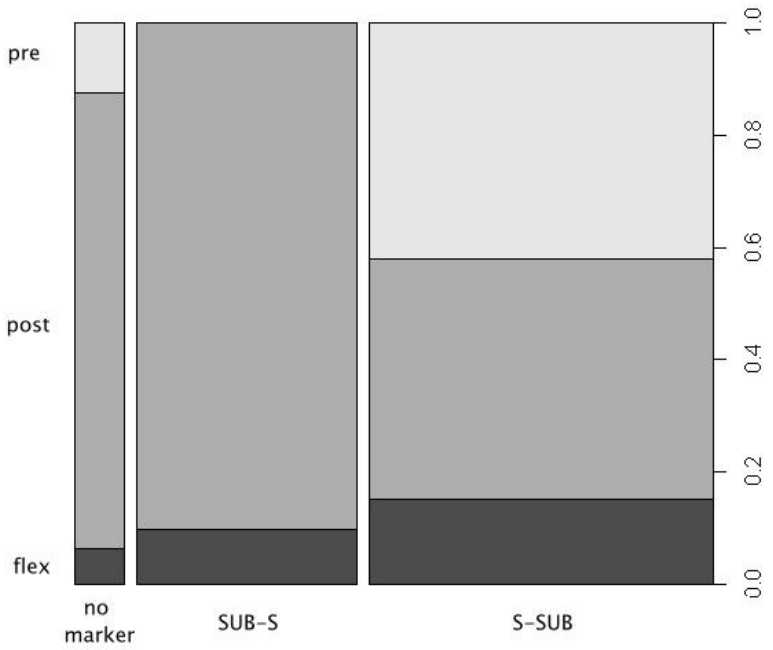


Figure 25 (§3.6.1): Overtness of subjects in positive and negative purpose clauses (N=214)

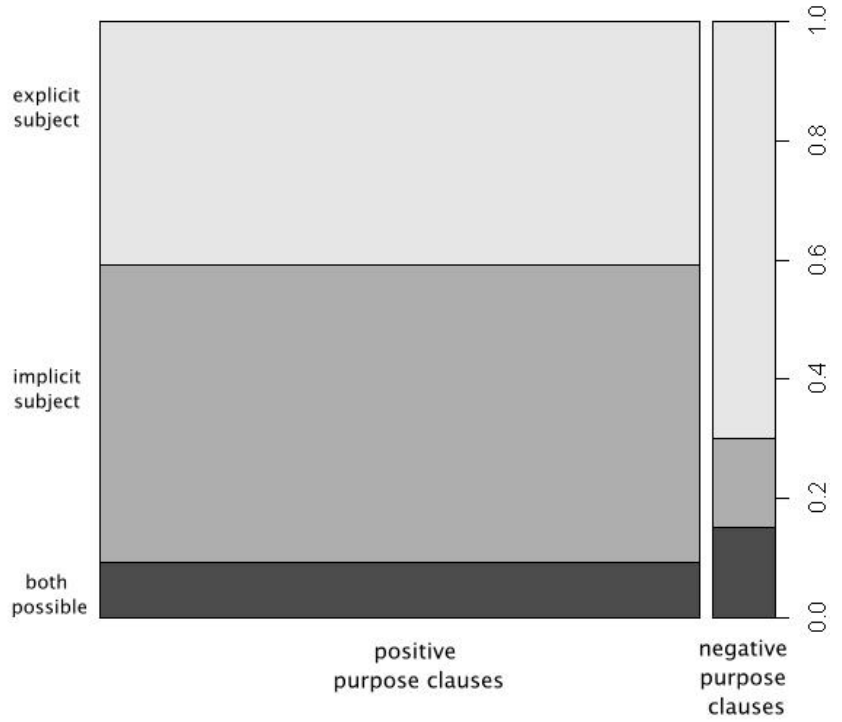
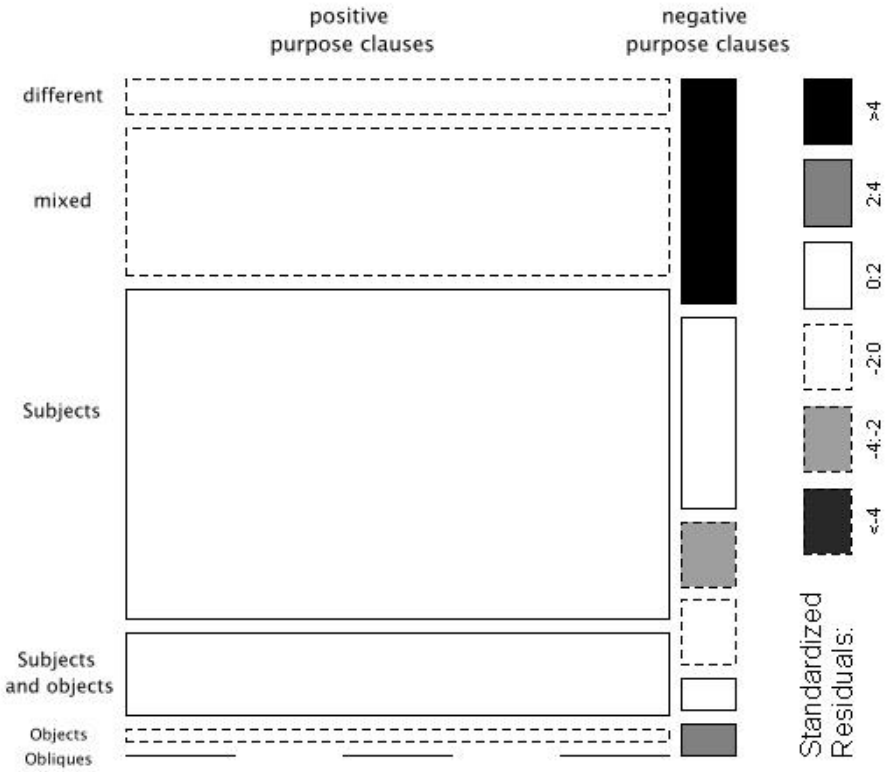


*Figure 26 (§3.6.2): Mosaic plot for co-reference relations of the subject of positive and negative purpose clauses**



*Shaded (or extended) mosaic plots were proposed by Friendly (1994) and can be produced via the `mosaicplot` function in *R*. Shadings reflect individual significance levels: Residuals between 0<|x|<2 are not individually significant (white boxes), residuals between 2<|x|<4 are significant at α=.05 (grey shading), and residuals from |x|>4 are significant at α=.0001(black shading).