

Visualizing ordinal outcomes with the Grotta bar chart in SAS

When analyzing an ordinal outcome, one of the first steps is often the visualization of its distribution across groups. In this regard, the Grotta bar chart is a powerful tool, used for instance in stroke research when analyzing the modified Rankin Scale. Its popularity stems from its ability to summarize the conditional distribution of the response while highlighting the important information with annotations.

Displaying this chart with R is relatively painless using the widespread ggplot2 library. It is also possible to draw a modified version with the SAS SG PANEL and SG TEMPLATE standard procedures. The implementation in both languages is an interesting exercise to illustrate their important differences.

This contribution will explore these points and, as a bonus, introduce a handy way to deal with color palettes for your graphs in both R and SAS.