Part 2 Pupillometry assignment

Question 1: We could choose to exclude trials with an atypical pupil size in a similar fashion. Do you think this would be a good idea? Why so, or why not? (Note, there are nowrong answers per se!)

If a participant is not paying attention, distracted, or otherwise not engaged in the task, their pupil responses may be atypical. This can make the data noisy and difficult to interpret. For example, if a participant is not paying att ntion to a stimulus, their pupils may not dilate as much as they would if they were paying attention. This could lead to the researcher underestimating the effect of the stimulus on pupil dilation. What is more, excluding atypical trials might improve the statistical power of the study. The latter applies if, for example, the data is noisy. In the previously mentioned case, it is more difficult to detect statistically significant effects

Question2: What is our DV, and what are our FE(s) and RE(s)?

- Here, our DV is the reaction time (RT). We are trying to explain the former using the other variables in your dataset.
- The fixed effects are target_background and final_stimulus. These are variables that you are interested in testing for their effects on RT. You want to know whether the target background or the final stimulus has a significant effect on RT.

The random effect in your dataset is subject. This is a variable that you want to account for, but that you are not interested in testing for its effect on RT. You want to account for the fact that different subjects may have different average RTs, but you are not interested in testing whether this difference is statistically significant.