**Data**

These contain the data from the final subjects used for analyses. For subject S01-S12 we did not determine eye-dominance in advance which means that we are not sure whether we manipulated the stimulus corresponding to the dominant eye, which is important to fully estimate the effects (see Supplementary Materials of paper for more details). The data contain per subject the responses for all 10 blocks. More details on what each variable means can be found in the Experiment code.

**Code**

The masterwrapper.m in the Analysis code performs the hierarchical Bayesian analysis and produces the figures reported in the paper. This analysis requires that JAGS is installed on your operating system (<http://mcmc-jags.sourceforge.net/>). The Experiment code represents the code used for the task. BRima\_init.m sets initialisation parameters (timing etc.) and calls BRima\_task.m that contain the main task structure. BRima\_task\_practice.m is an independent short version of the task without different contrast values that can be used for practice.

If you want to use the task without varying contrast values (the standard imagery task) you need to control for eye-dominance. BRima\_staircase.m is an adapted version of the staircase procedure used in Bergmann et al. (2016) that adjusts the contrast of the two stimuli. The rationale is that presenting a stimulus at full dominance in between rivalry presentations should cause the participant to subsequently perceive the other stimulus (adaptation effect). If this is not the case, the contrast of the presented stimulus is too high and needs to be adjusted.