Rainbow Colormaps: What are they good and bad for?

-Supplementary Materials-

The supplementary materials package includes two things:

1) data & analysis script

- **exp_data{1|2|3}.csv:** The raw (per trial) responses provided by subjects in experiment 1/2/3. Every row represents one trial containing the following columns:
    - `subjectid`: a unique ID for each subject
    - `responseid`: a unique ID for each trial
    - `block`: block number (ranges between 1-4)
    - `stimulus`: stimulus number
    - `colormap`: the colormap used in the trial
    - `vis`: visualization type
        - `fieldSmooth`: scalar field
    - `centerPerturb`: level of perturbation for global features. Doesn't change throughout the experiment
    - `noisePertrub, noisePerturbCount, noiseAmplitude`: perturbation of local features. These parameters do not change throughout the experiment.
    - `correct`: whether the subject had answered correctly
    - `modelChoice`: whether a participants selected the global (1) or the local target (2)
    - `responseTime`: time it took subject to respond to stimulus (m. seconds)
    - `generationTime`: time it took the interface to randomly generate the lineup (m. seconds)
    - `colorCategorization`: the color categorization tendency for the colormap (see paper for metric definition)
    - `selectedCanvas`: the position of the plot that had been selected by the participant (1 through 6)

    The following fields are specific to Experiment 3:

    - `targetType`: indicates whether a trial includes a single global target (1) or a local target (2)
    - `colormap1Time:` the time a participant spent looking at the lineup with *blue-orange*
    - `colormap2Time:` the time a participant spent looking at the lineup with *Brewer's blue*
    - `colormapSwitch`: number of colormap switches that occurred in this trial
    - `initialColormap:` the randomly assigned initial colormap for this trial (1=blue-orange, 2=Brewer's blue)
    - `finalColormap:` the final colormap a participant had settled on

- **exp{1|2|3}.R:** R code for modeling and running the statistical analyses in experiment 1/2/3.

2) Experimental Interface:

The experimental interface seen by subjects is included in this folder. The interface should run within any WebGL-compliant web browser. To launch, open **`EXPERIMENT.html`**.