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## Electronic supplementary materials

- Custom programmed meta-search tool for literature review:  
[http://irrational-decisions.com/?page\\_id=526](http://irrational-decisions.com/?page_id=526)
- Animated version of the Möbius band which constitutes the cover image:  
<http://moebius-band.ga/>
- Online repository associated with this thesis containing all datasets:  
<http://irrational-decisions.com/phd-thesis/>
- Literature review on quantum cognition (HTML format):  
[http://irrational-decisions.com/?page\\_id=1440](http://irrational-decisions.com/?page_id=1440)
- Möbius band transformations:  
[http://irrational-decisions.com/?page\\_id=2599](http://irrational-decisions.com/?page_id=2599)
- Digital artworks depicting the Necker cube from a quantum cognition perspective  
The “Quantum Necker cube”:  
[http://irrational-decisions.com/?page\\_id=420](http://irrational-decisions.com/?page_id=420)
- Necker Qbism: Thinking outside the box – getting creative with the Necker cube:  
[http://irrational-decisions.com/?page\\_id=1354](http://irrational-decisions.com/?page_id=1354)
- The syllogistic logic of hypothesis testing – logical fallacies associated with NHST:  
[http://irrational-decisions.com/?page\\_id=441#nhst](http://irrational-decisions.com/?page_id=441#nhst)
- Explanation of “rational intelligence” ( $IQ \neq RQ$ ):  
[http://irrational-decisions.com/?page\\_id=2448](http://irrational-decisions.com/?page_id=2448)  
Bose–Einstein statistics: “Quantum dice” (included interactive Shockwave Flash applet):  
[http://irrational-decisions.com/quantum\\_dice/](http://irrational-decisions.com/quantum_dice/)
- The Gott-Li self-creating fractal universe model (Vaas, 2004):  
[http://irrational-decisions.com/?page\\_id=2351](http://irrational-decisions.com/?page_id=2351)
- An interactive application of the HSV colour model programmed in Adobe® Flash:  
[http://irrational-decisions.com/?page\\_id=875](http://irrational-decisions.com/?page_id=875)
- Visual stimuli as used in Experiment 1 and 2:  
<http://irrational-decisions.com/phd-thesis/visual-stimuli/low-luminance.jpg>  
<http://irrational-decisions.com/phd-thesis/visual-stimuli/high-luminance.jpg>
- Python code for Experiment 1:  
[http://irrational-decisions.com/?page\\_id=618](http://irrational-decisions.com/?page_id=618)

- High-resolution version of median-based connected boxplots:  
<http://irrational-decisions.com/phd-thesis/connected-boxplots-exp1-v00-v10.pdf>  
<http://irrational-decisions.com/phd-thesis/connected-boxplots-exp1-v01-v11.pdf>
- Comprehensive summary NHST results if Experiment 1 including interactive visualisation of the Vovk-Sellke maximum  $p$ -ratio (VS-MPR):  
<http://irrational-decisions.com/phd-thesis/results-exp1.html>
- JASP analysis script associated with the Bayes Factor analysis of Experiment 1:  
<http://irrational-decisions.com/phd-thesis/exp1.jasp>
- Open-source software for Markov chain Monte Carlo simulations and Bayesian parameter estimation:  
[http://irrational-decisions.com/?page\\_id=1993](http://irrational-decisions.com/?page_id=1993)
- High-resolution version of the Bayesian parameter estimation correlation matrix of Experiment 1:  
<http://irrational-decisions.com/phd-thesis/cor-matrix-exp1.pdf>
- High-resolution version of the posterior distributions associated with the Bayesian parameter estimation analysis:  
<http://irrational-decisions.com/phd-thesis/summary-exp1-cond-v00-vs-v10.pdf>
- Comprehensive summary of the Bayes Factor analysis associated with Experiment 2:  
<http://irrational-decisions.com/phd-thesis/bayesfactor-analysis-exp2.html>
- JASP analysis script associated with Experiment 2:  
<http://irrational-decisions.com/phd-thesis/analysis-script-exp2.jasp>
- Auditory stimuli as utilised in Experiment 3 and 4 (\*.wav files)  
<http://irrational-decisions.com/phd-thesis/auditory-stimuli/stimulus-0.6.wav>  
<http://irrational-decisions.com/phd-thesis/auditory-stimuli/stimulus-0.8.wav>
- Comprehensive summary of the NHST analysis associated with Experiment 3:  
<http://irrational-decisions.com/phd-thesis/exp3/results-exp3.html>
- Comprehensive summary of the NHST analysis associated with Experiment 4:  
<http://irrational-decisions.com/phd-thesis/frequentist-analysis-exp4.html>
- Comprehensive summary of the Bayes Factor analysis associated with Experiment 4:  
<http://irrational-decisions.com/phd-thesis/bayesfactor-analysis-exp4.html>
- JASP analysis script associated with Experiment 4:

<http://irrational-decisions.com/phd-thesis/analysis-script-exp4.jsp>

- Interactive 3-dimensional scatterplot of the MCMC dataset associated with Experiment 1 as a MP4 video file:

<http://irrational-decisions.com/phd-thesis/scatterplot3d-openGL.mp4>

- Monte Carlo dataset associated with Experiment 1:

- <http://irrational-decisions.com/phd-thesis/mcmc-chain-exp2.txt>

- “BEST.R” script for MCMC based Bayesian parameter estimation:

[http://irrational-decisions.com/?page\\_id=1996](http://irrational-decisions.com/?page_id=1996)

- High-resolution of “Google Trends” timeseries:

<http://irrational-decisions.com/phd-thesis/gtrends-mcmc.pdf>

- Dataset underlying the “Google Trends” timeseries:

<http://irrational-decisions.com/phd-thesis/gtrends-mcmc.txt>