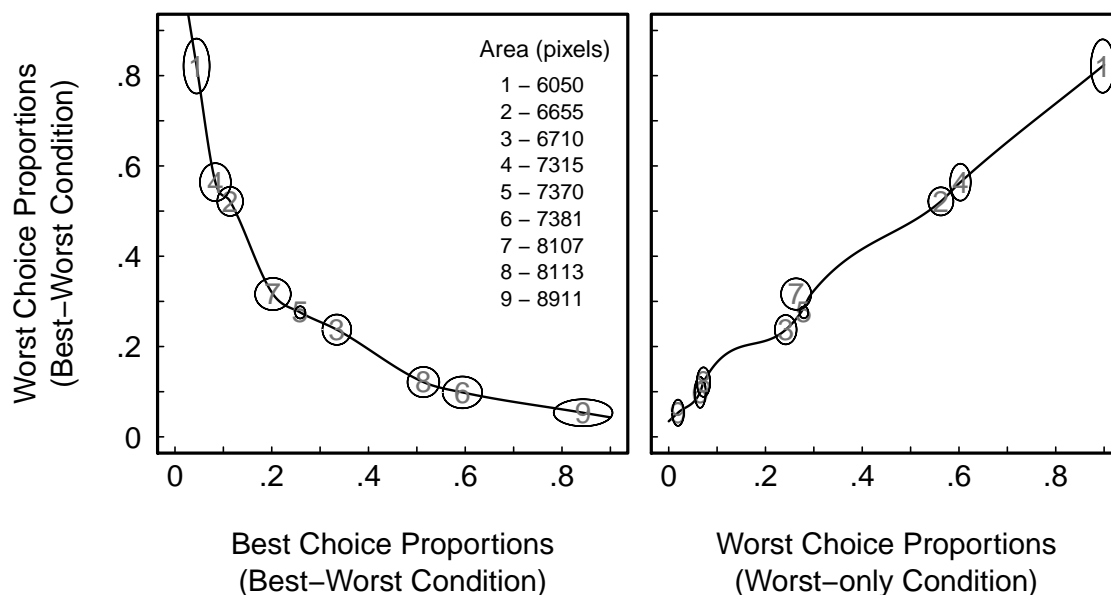


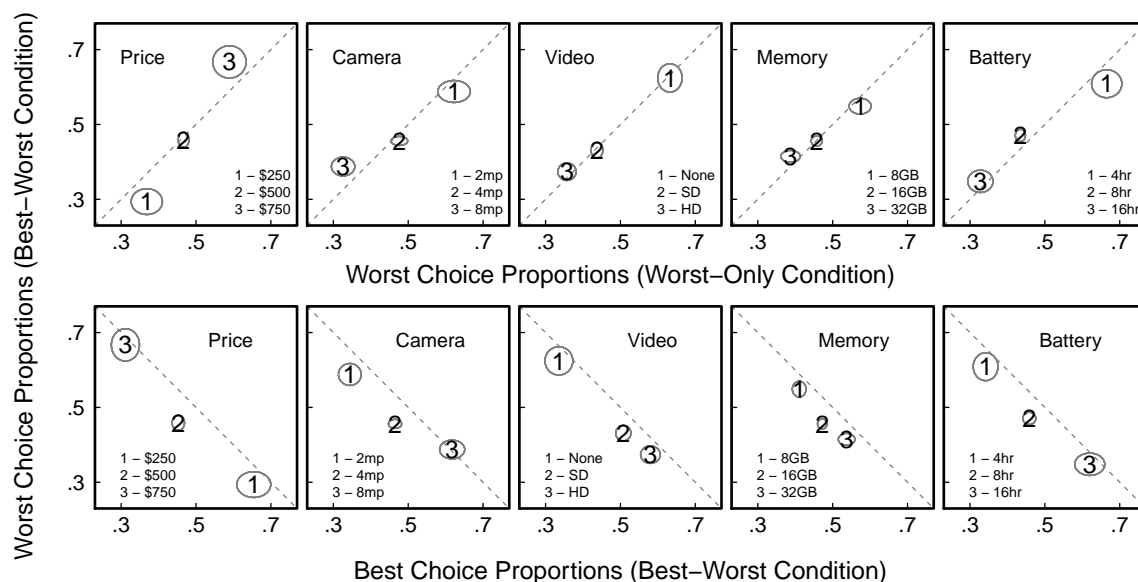
Supplementary Material for “The Best of Times and the Worst of Times are Interchangeable” (Hawkins, Marley, Heathcote, Flynn, Louviere, & Brown, in press, *Decision*)

In this supplementary material we provide figures from Experiments 1 and 2 that were omitted from the main text for brevity. Figure 1 shows the remaining two state-trace analyses from Experiment 1. The left panel plots the best and worst choice proportions from the best-worst condition (i.e., a within-subjects comparison). The right panel plots the worst choice proportions from the best-worst condition ( $y$ -axis) and the worst-only condition ( $x$ -axis). In both cases all points can be connected with a single monotonic curve – decreasing on the left, increasing on the right – consistent with a single data generating process.



*Figure 1.* State-trace plots of best and worst choice proportions from selected conditions in Experiment 1. The  $y$ -axis plots worst choice proportions from the best-worst condition (both panels). The  $x$ -axis plots best choice proportions from the best-worst condition (left panel) and worst choice proportions from the worst-only condition (right panel). The symbols labeled 1 – 9 represent areas of the nine unique rectangles. Ellipses represent between-subjects least significant differences. The black curve represents a monotonic curve joining all plots in each panel – decreasing in the left panel, increasing in the right panel – consistent with the interpretation of a data generating process with a single latent variable.

Figure 2 shows the remaining two within-attribute state-trace analyses from Experiment 2. All details are as per Figure 4 of the main text, except that the upper panels plot attribute-level worst choice proportions from the worst-only and best-worst conditions. The lower panels plot best and worst attribute-level choice proportions from the best-worst condition. In all panels the points can be connected with a single monotonic curve, which provides a necessary condition to diagnose dimensionality.

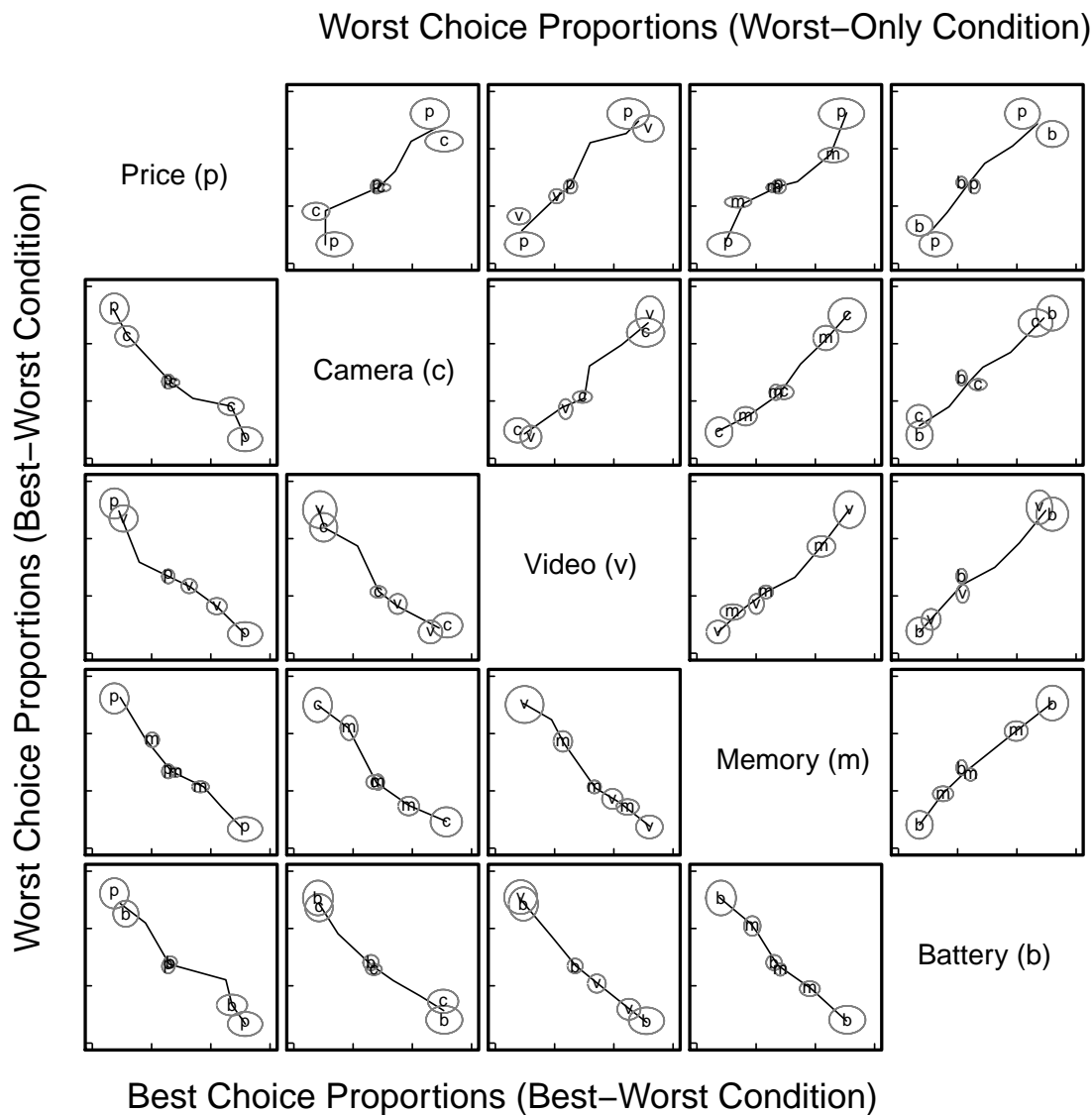


*Figure 2.* Attribute-level choice proportions for the mobile phone stimuli in Experiment 2. The upper panels show the attribute-level worst choice proportions for the best-worst condition ( $y$ -axes) against the attribute-level worst choice proportions for the worst-only condition ( $x$ -axes) for each attribute, separately. The dashed gray lines show the  $y = x$  line where preferences would fall if they were identically distributed across the best-worst and worst-only conditions. The lower panels show the attribute-level worst choice proportions for the best-worst condition ( $y$ -axes) against the attribute-level best choice proportions from the best-worst condition ( $x$ -axes). The dashed gray lines show where the attribute-level worst choice proportions would fall if they were the reverse of the attribute-level best choice proportions ( $y = 1 - x$ ). Ellipses represent between-subjects least significant differences.

Figure 3 provides the diagnostic across-attribute state-trace plot from Experiment 2. As with the corresponding Figure 5 of the main text, the data points in all panels can be connected with a single monotonic curve, consistent with an interpretation based on a single data generating process.

## References

- Morey, R. D. (2008). Confidence intervals from normalized data: A correction to Cousineau (2005). *Tutorials in Quantitative Methods for Psychology*, 4, 61–64.



*Figure 3.* State-trace plots for the mobile phone judgments in Experiment 2. The upper right panels plot attribute-level worst choice proportions between the best-worst ( $y$ -axes) and worst-only ( $x$ -axes) conditions. The lower left panels plot attribute-level worst choice proportions for the best-worst condition ( $y$ -axes) against attribute-level best choice proportions for the best-worst condition ( $x$ -axes). Each panel displays the co-variation of attribute-level mean choice proportions between the levels of two attributes, with the figure depicting all pairwise comparisons of attributes. Ellipses represent between-subjects least significant differences (upper right panels) and bias-corrected within-subjects least significant differences (Morey, 2008; lower left panels). Monotonic curves added to aid visualization only and do not represent ‘best-fitting’ monotonic functions to data. Axis scaling omitted for clarity. Note that axes are not equal in scale (see Figure 2).