Description and choice data for the domain "Male stars"

Description of the choice domain 1, Male stars

The prompt question and the universe of five response options in the choice domain Male stars are as follows. The labels a, b, c, d and e were not displayed during the experiment and are indicated here to allow cross-referencing with data tables and visualizations below and results in the paper.

% Male stars

The source for this domain is the website ranker.com, accessed June 4, 2017. The list is "The best actors working today". The choices are the top five actors in that list, in order.

Which movie star would you choose to have lunch with?

Tom Hanks
Kevin Spacey
Morgan Freeman
Leonardo DiCaprio
Christian Bale

The following figure is a screenshot from the actual experiment, with one of the 26 possible menus for this domain.



Figure 1: Screenshot for domain Male stars

| | Choice counts | | | | | Choice proportions | | | | |
|-----------------|---------------|----------|----------|----------|----------|--------------------|----------------|----------------|----------------|----------------|
| Menu ${\cal A}$ | $N_A(a)$ | $N_A(b)$ | $N_A(c)$ | $N_A(d)$ | $N_A(e)$ | $\hat{P}_A(a)$ | $\hat{P}_A(b)$ | $\hat{P}_A(c)$ | $\hat{P}_A(d)$ | $\hat{P}_A(e)$ |
| $\{a,b\}$ | 32 | 8 | - | - | - | 0.800 | 0.200 | - | - | - |
| $\{a,c\}$ | 21 | - | 19 | - | - | 0.525 | - | 0.475 | - | - |
| $\{b,c\}$ | - | 15 | 26 | - | - | - | 0.366 | 0.634 | - | - |
| $\{a,b,c\}$ | 17 | 4 | 19 | - | - | 0.425 | 0.100 | 0.475 | - | - |
| $\{a,d\}$ | 26 | - | - | 14 | - | 0.650 | - | - | 0.350 | - |
| $\{b,d\}$ | - | 21 | - | 19 | - | - | 0.525 | - | 0.475 | - |
| $\{a,b,d\}$ | 23 | 5 | - | 12 | - | 0.575 | 0.125 | - | 0.300 | - |
| $\{c,d\}$ | - | - | 21 | 19 | - | - | - | 0.525 | 0.475 | - |
| $\{a,c,d\}$ | 16 | - | 15 | 9 | - | 0.400 | - | 0.375 | 0.225 | - |
| $\{b,c,d\}$ | - | 8 | 25 | 7 | - | - | 0.200 | 0.625 | 0.175 | - |
| $\{a,b,c,d\}$ | 11 | 4 | 18 | 7 | - | 0.275 | 0.100 | 0.450 | 0.175 | - |
| $\{a,e\}$ | 31 | - | - | - | 9 | 0.775 | - | - | - | 0.225 |
| $\{b,e\}$ | - | 24 | - | - | 16 | - | 0.600 | - | - | 0.400 |
| $\{a,b,e\}$ | 20 | 12 | - | - | 8 | 0.500 | 0.300 | - | - | 0.200 |
| $\{c,e\}$ | - | - | 32 | - | 8 | - | - | 0.800 | - | 0.200 |
| $\{a,c,e\}$ | 17 | - | 16 | - | 7 | 0.425 | - | 0.400 | - | 0.175 |
| $\{b,c,e\}$ | - | 8 | 27 | - | 5 | - | 0.200 | 0.675 | - | 0.125 |
| $\{a,b,c,e\}$ | 15 | 6 | 16 | - | 4 | 0.366 | 0.146 | 0.390 | - | 0.098 |
| $\{d,e\}$ | - | - | - | 28 | 12 | - | - | - | 0.700 | 0.300 |
| $\{a,d,e\}$ | 20 | - | - | 13 | 7 | 0.500 | - | - | 0.325 | 0.175 |
| $\{b,d,e\}$ | - | 13 | - | 21 | 6 | - | 0.325 | - | 0.525 | 0.150 |
| $\{a,b,d,e\}$ | 20 | 5 | - | 11 | 4 | 0.500 | 0.125 | - | 0.275 | 0.100 |
| $\{c,d,e\}$ | - | - | 21 | 12 | 7 | - | - | 0.525 | 0.300 | 0.175 |
| $\{a,c,d,e\}$ | 14 | - | 12 | 9 | 5 | 0.350 | - | 0.300 | 0.225 | 0.125 |
| $\{b,c,d,e\}$ | - | 6 | 25 | 6 | 3 | - | 0.150 | 0.625 | 0.150 | 0.075 |
| $\{a,b,c,d,e\}$ | 10 | 4 | 10 | 13 | 3 | 0.250 | 0.100 | 0.250 | 0.325 | 0.075 |

Table 1: Observed choice counts and proportions.

Choice data for domain 1, Male stars

Table 1 shows choice counts and choice proportions for this choice domain. For each menu A and each object $x \in \{a, b, c, d, e\}$, $N_A(x)$ is the number of participants who chose object x from menu A and $\hat{P}_A(x)$ is the corresponding proportion of participants who chose x from A. When $x \notin A$, a dash is displayed.

The following figure displays choice proportions for all doubleton and tripleton menus in Barycentric coordinates. See a full description of this graphical representation in the paper. Each panel shows choice proportions for all doubleton and tripleton menus of a different tripleton subset of $\{a,b,c,d,e\}$. The downward-pointed (blue) triangle shows the set of ternary choice proportions that are compatible with regularity and the three binary choice proportions, on the corresponding tripleton. The upward-pointed (red) triangle shows the set of ternary choice proportions compatible with the multiplicative inequality and the three binary choice proportions.

