

An Empirical Exploration of Moral Foundations Theory in Partisan News Sources

Dean Fulgoni, Jordan Carpenter, Lyle Ungar, Daniel Preotiuc-Pietro
dfulgoni@seas.upenn.edu danielpr@sas.upenn.edu

Computer Science Department and Positive Psychology Center, University of Pennsylvania



a) Abortion



b) Ferguson



c) Climate Change

Figure 2: Top 40 words by log-odds ratio.

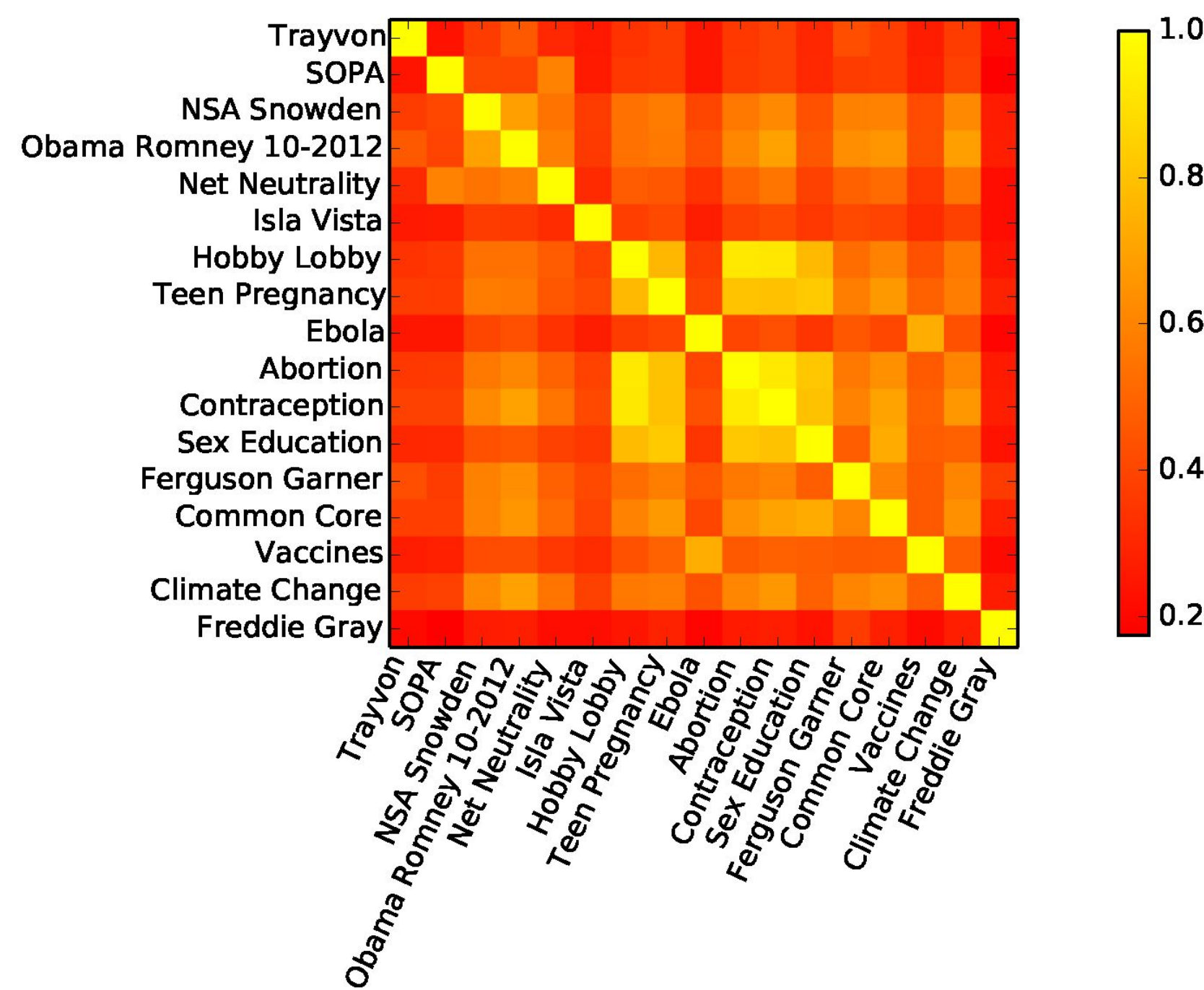


Figure 1: Cosine similarity between issues.

Datasets

- MIT Mediacloud sampled word counts
- 17 Issues
- 3 Partisan Sides: Conservative, Liberal, Libertarian
- Classification on web-scraped articles

Classification Accuracies Above Baseline

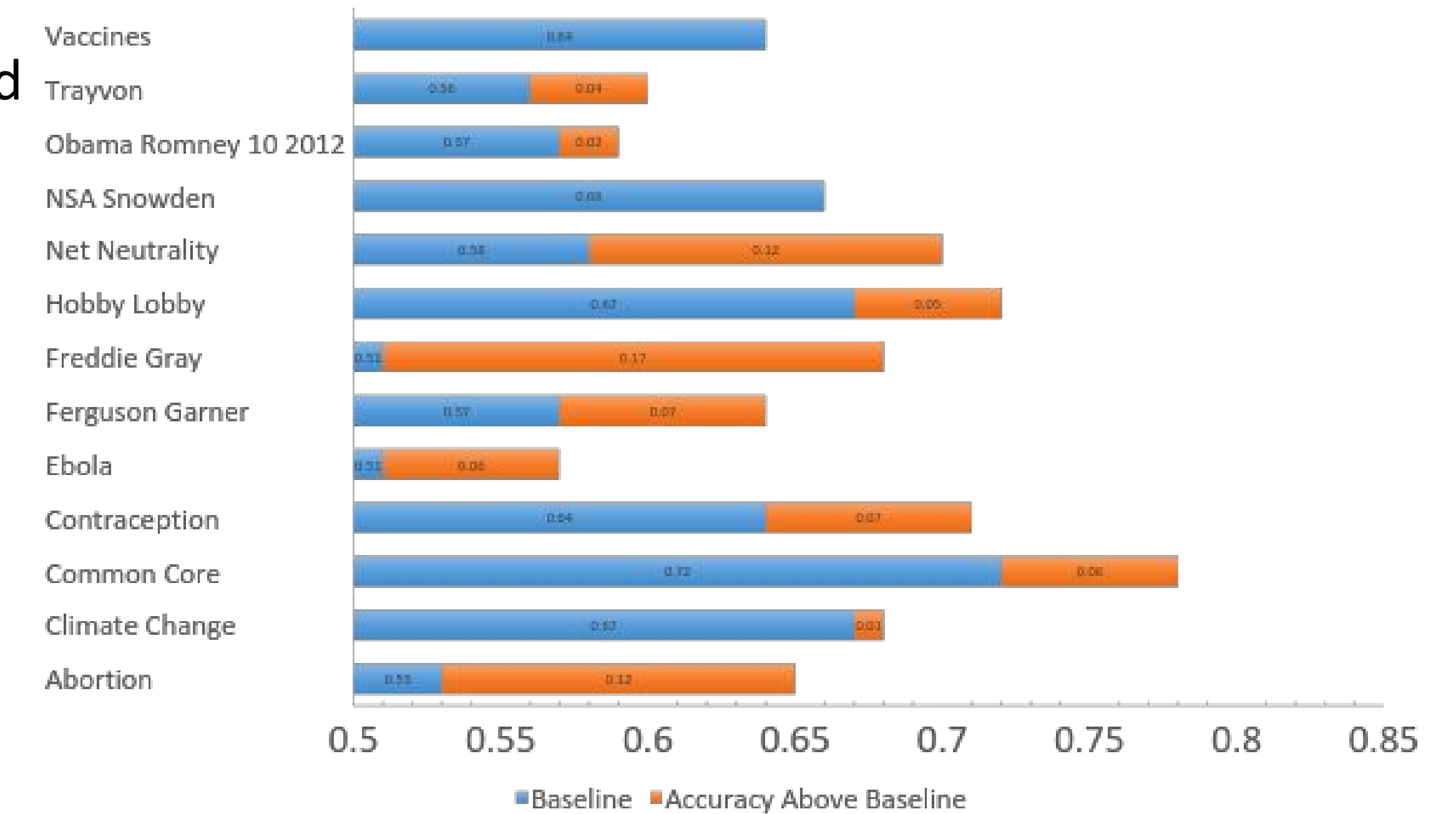


Chart 1: Prediction accuracies across issues using the Naïve Bayes classifier.

Moral Foundations Theory (MFT)

Care / Harm: Valuing compassion and kindness, condemning malice and suffering.

Fairness / Cheating: The endorsement of equality, reciprocity, egalitarianism, and universal rights.

Ingroup Loyalty / Betrayal: Valuing patriotism and special treatment of one's own ingroup.

Authority / Subversion: Valuing existing or traditional hierarchies, social structures, and leadership roles.

Purity / Degradation: Disapproval of dirtiness, unholiness, and impurity.

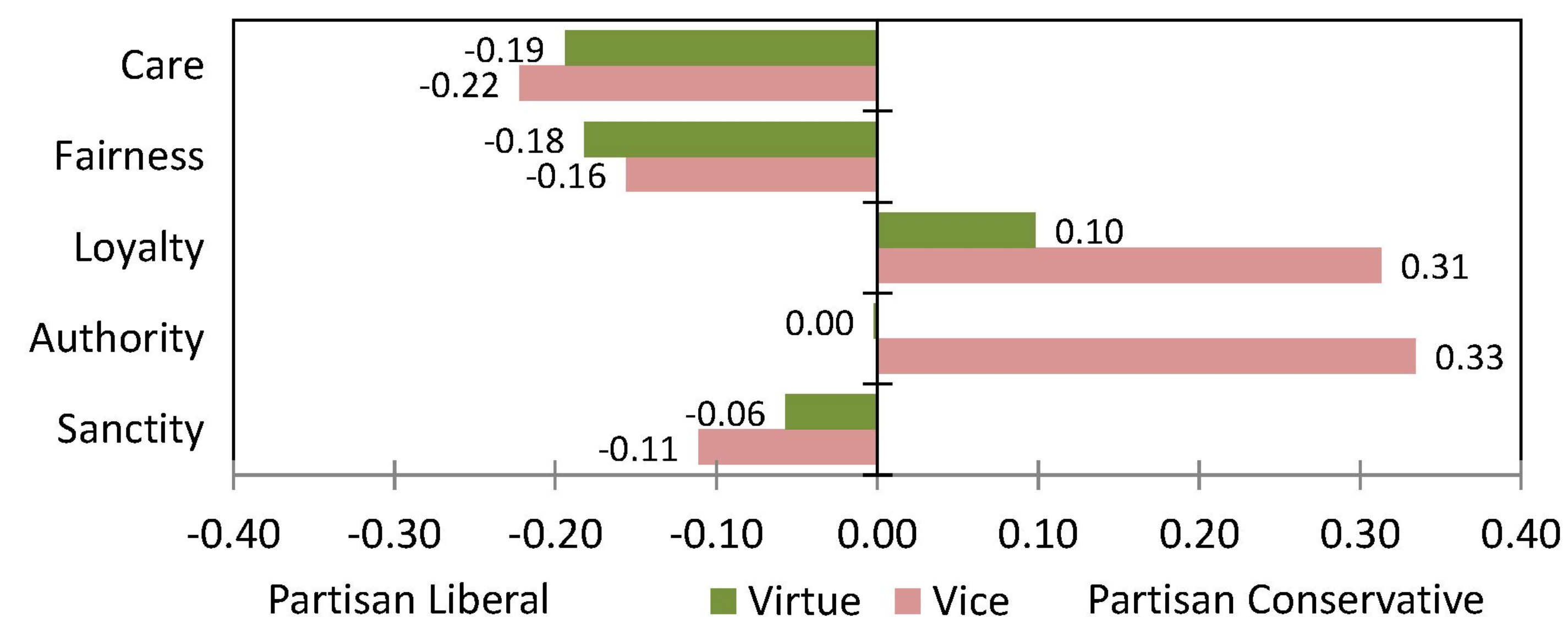


Chart 2: Relative differences in MFT word usage.

Authority Virtue (+)	Fairness Virtue (+)	Harm Virtue (+)	Ingroup Virtue (+)	Purity Virtue (+)
Law	Rights	Care	Nation*	Church*
Control	Justice	Secur*	Unite*	Virgin
Legal*	Fair	Protect*	Group	Clean*
Order*	Equal*	Defen*	Family	Innocent
Leader*	Balance*	Safe*	Member	Pure*
Authority Vice (-)	Fairness Vice (-)	Harm Vice (-)	Ingroup Vice (-)	Purity Vice (-)
Protest	Discriminat*	War	Foreign*	Sin
Illegal*	Bias*	Kill	Individual*	Disease*
Refuse	Disproportion*	Attack*	Immigra*	Sick*
Oppose	Unfair*	Fight*	Terroris*	Exploit
Riot*	Injust*	Killed	Enem*	Dirt*

Table 1: Most common words from the MFT dictionaries.