S1 Table. Inter-rater reliability Kappa scores for all themes coded.

| Theme                                      | JC–NCN | KI–JC | KI–NCN | Average Kappa |
|--------------------------------------------|--------|-------|--------|---------------|
| 2016 Nature survey                         | 0.98   | 0.92  | 0.94   | 0.95          |
| Loss of funding                            | 1.00   | 0.87  | 0.87   | 0.91          |
| John Ioannidis                             | 0.85   | 0.78  | 0.83   | 0.82          |
| Methods training                           | 0.75   | 0.81  | 0.84   | 0.80          |
| Brian Nosek/Center for Open Science        | 0.80   | 0.80  | 0.77   | 0.79          |
| Transparency                               | 0.82   | 0.73  | 0.75   | 0.77          |
| Amgen or Bayer studies                     | 0.80   | 0.68  | 0.80   | 0.76          |
| Pre-registration                           | 0.71   | 0.76  | 0.79   | 0.75          |
| Retractions                                | 0.76   | 0.78  | 0.60   | 0.71          |
| Popular press coverage                     | 0.66   | 0.67  | 0.76   | 0.70          |
| Impact on policy or habits                 | 0.72   | 0.62  | 0.75   | 0.70          |
| Government/NGO actions                     | 0.78   | 0.57  | 0.74   | 0.70          |
| Andrew Gelman                              | 0.90   | 0.63  | 0.56   | 0.70          |
| Sample size and power                      | 0.71   | 0.65  | 0.70   | 0.69          |
| Peer review                                | 0.63   | 0.60  | 0.82   | 0.68          |
| Reagents                                   | 0.81   | 0.52  | 0.68   | 0.67          |
| Economic cost                              | 0.76   | 0.63  | 0.60   | 0.66          |
| Failure to replicate important findings    | 0.67   | 0.70  | 0.59   | 0.65          |
| General public expectations                | 0.69   | 0.70  | 0.56   | 0.65          |
| Incentives                                 | 0.65   | 0.61  | 0.68   | 0.65          |
| P values                                   | 0.67   | 0.61  | 0.64   | 0.64          |
| Career costs to scientists                 | 0.59   | 0.68  | 0.64   | 0.64          |
| Heterogeneity                              | 0.52   | 0.67  | 0.71   | 0.63          |
| Bayesian statistics                        | 0.79   | 0.59  | 0.52   | 0.63          |
| Meta-science                               | 0.79   | 0.54  | 0.55   | 0.63          |
| Field differences                          | 0.65   | 0.61  | 0.60   | 0.62          |
| Fraud                                      | 0.51   | 0.59  | 0.72   | 0.61          |
| Publishing culture                         | 0.69   | 0.60  | 0.53   | 0.61          |
| Legitimacy of science                      | 0.53   | 0.68  | 0.59   | 0.60          |

excluded from analysis (average Kappa < 0.60):

| Problems with the solutions | 0.59 | 0.61 | 0.57 | 0.59 |
| Epistemology                | 0.62 | 0.61 | 0.52 | 0.58 |
| Replication                 | 0.51 | 0.60 | 0.55 | 0.55 |

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| Theme                          | JC–NCN | KI–JC | KI–NCN | Average Kappa |
|-------------------------------|--------|-------|-------|---------------|
| Impact on medicine            | 0.67   | 0.51  | 0.48  | 0.55          |
| Communication and collaboration| 0.44   | 0.58  | 0.63  | 0.55          |
| Implausible findings          | 0.65   | 0.36  | 0.62  | 0.54          |
| Effect size                   | 0.63   | 0.43  | 0.56  | 0.54          |
| Fraud is a problem            | 0.41   | 0.53  | 0.65  | 0.53          |
| Selective reporting           | 0.51   | 0.53  | 0.50  | 0.51          |
| Failures to replicate         | 0.53   | 0.51  | 0.50  | 0.51          |
| Experimental design           | 0.56   | 0.52  | 0.45  | 0.51          |
| Personal anecdotes            | 0.59   | 0.50  | 0.39  | 0.49          |
| Fraud is not a problem        | 0.30   | 0.46  | 0.65  | 0.47          |
| Other statistical discussion  | 0.41   | 0.40  | 0.54  | 0.45          |
| Other quantifying studies     | 0.51   | 0.35  | 0.49  | 0.45          |
| Data collection and analysis  | 0.42   | 0.47  | 0.45  | 0.45          |
| Attention in scientific venues| 0.47   | 0.44  | 0.37  | 0.43          |
| Bias                          | 0.49   | 0.40  | 0.38  | 0.42          |
| Evidence synthesis            | 0.49   | 0.28  | 0.49  | 0.42          |
| Sloppy research practices     | 0.53   | 0.34  | 0.38  | 0.42          |
| Progress of science           | 0.37   | 0.38  | 0.35  | 0.37          |
| Regulation                    | 0.33   | 0.42  | 0.34  | 0.36          |
| Other failures to replicate   | 0.21   | 0.43  | 0.19  | 0.28          |
| Scientists’ expectations      | 0.30   | 0.30  | 0.23  | 0.28          |