Visual Cues to the Hidden Agenda: Investigating the Effects of Ideology-Related Visual Subtle Backdrop Cues in Political Communication

Supplementary Information

Viorela Dan (LMU Munich)
Florian Arendt (University of Vienna)

A) Test of Conceptual Model

We used PROCESS (model 21, see Hayes, 2013) for the test of the conceptual model visualized in this figure. We dummy-coded the SBC-exposure variable (liberal condition = 0, conservative condition = 1; $n = 222$) for this regression-based approach.

Figure A1. Conceptual model.
Effects of Ideology-Related Visual Subtle Backdrop Cues

Details of analysis:

*************** PROCESS Procedure for SPSS Release 2.13 ***************

Written by Andrew F. Hayes, Ph.D. www.afhayes.com

Documentation available in Hayes (2013). www.guilford.com/p/hayes3

**************************************************************************

Model = 21

Voting Intention = Voting
SBC Treatment = GruDi
Politician’s Perceived Ideology = PercIde
Cue Awareness = CueAw
Respondent’s Political Ideology = RespIdeo

Sample size

222

Table A1.

Outcome: Politician’s political ideology as perceived by citizens

Model Summary

| R     | R-sq  | MSE   | F    | df1 | df2   | p    |
|-------|-------|-------|------|-----|-------|------|
| .2021 | .0408 | 1,3164| 3,0948| 3,0000| 218,0000 | .0278 |

Model

| coeff | se    | t     | p     | LLCI  | ULCI  |
|-------|-------|-------|-------|-------|-------|
| constant | 4,9604 | .1523 | 32,5640 | .0000 | 4,6601 | 5,2606 |
| GruDi  | -.2852 | .2215 | -1,2872 | .1994 | -.7218 | .1515 |
| CueAw  | -.1123 | .0997 | -1,1269 | .2610 | -.3087 | .0841 |
| int_1  | .3887  | .1440 | 2,6987  | .0075 | .1048  | .6726 |

Interactions:

int_1 GruDi X CueAw
Table A2.

Outcome: Voting intention

Model Summary

|     | R       | R-sq     | MSE      | F         | df1 | df2     | p       |
|-----|---------|----------|----------|-----------|-----|---------|---------|
|     | 0.4792  | 0.2296   | 2.4799   | 16.1672   | 4.0000 | 217.0000 | 0.0000  |

Model

|     | coeff     | se       | t        | p       | LLCI   | ULCI    |
|-----|-----------|----------|----------|---------|--------|---------|
|     | constant  | 9.0235   | 1.3054   | 6.9125  | 0.0000 | 6.4507  | 11.5964 |
|     | PercIde   | -1.2002  | 0.2561   | -4.6865 | 0.0000 | -1.7049 | -0.6954 |
|     | GruDi     | -0.0672  | 0.2129   | -0.3156 | 0.7526 | -0.4867 | 0.3524  |
|     | Respldeo  | -0.6687  | 0.3517   | -1.9014 | 0.0586 | -1.3619 | 0.0245  |
|     | int_2     | 0.1493   | 0.0706   | 2.1141  | 0.0356 | 0.0101  | 0.2885  |

Interactions:

int_2 PercIde X Respldeo

Number of bootstrap samples for bias corrected bootstrap confidence intervals: 1000

Level of confidence for all confidence intervals in output: 95.00
**Additional Analysis to Estimate Conditional Effects**
*(using PROCESS model 1, Johnson-Neyman Technique)*

Table A3.

*Predicting politician’s political ideology as perceived by citizens*

Moderator value(s) defining *Johnson-Neyman significance region(s):*

| Value | % below | % above |
|-------|---------|---------|
| 1.5924| 68.0180 | 31.9820 |

**Conditional effect of SBC treatment on politician’s political ideology as perceived by citizens at values of the moderator (cue awareness):**

| Cue Awareness | Effect | se   | t    | p    | LLCI | ULCI |
|---------------|--------|------|------|------|------|------|
| 0.0000        | -2.852 | 2.215| -1.2872 | 1.994 | -0.7218 | 1.515 |
| 0.2000        | -2.074 | 2.019| -1.0277 | 3.052 | -0.6053 | 1.904 |
| 0.4000        | -1.197 | 1.846| -0.7027 | 4.830 | -0.4935 | 2.341 |
| 0.6000        | -0.052 | 1.704| -0.3049 | 7.608 | -0.3878 | 2.839 |
| 0.8000        | 0.0258  | 1.603| 0.1609 | 8.723 | -0.2901 | 3.416 |
| 1.0000        | 0.1035  | 1.549| 0.6685 | 5.045 | -0.2017 | 4.088 |
| 1.2000        | 0.1813  | 1.547| 1.1715 | 2.427 | -1.1237 | 4.862 |
| 1.4000        | 0.2590  | 1.599| 1.6201 | 1.067 | -0.0561 | 5.741 |
| 1.5924        | 0.3338  | 1.694| 1.9709 | 0.500 | 0.0000  | 6.676 |
| 1.6000        | 0.3368  | 1.698| 1.9830 | 0.0486 | 0.0021  | 6.715 |
| 1.8000        | 0.4145  | 1.838| 2.2553 | 0.0251 | 0.0523  | 7.767 |
| 2.0000        | 0.4922  | 2.009| 2.4497 | 0.0151 | 0.0962  | 8.883 |
| 2.2000        | 0.5700  | 2.205| 2.5846 | 0.0104 | 0.1353  | 1.0046 |
| 2.4000        | 0.6477  | 2.420| 2.6768 | 0.0080 | 0.1708  | 1.1246 |
| 2.6000        | 0.7255  | 2.648| 2.7395 | 0.0067 | 0.2035  | 1.2474 |
| 2.8000        | 0.8032  | 2.887| 2.7819 | 0.0059 | 0.2341  | 1.3723 |
| 3.0000        | 0.8810  | 3.135| 2.8103 | 0.0054 | 0.2631  | 1.4988 |
| 3.2000        | 0.9587  | 3.389| 2.8293 | 0.0051 | 0.2909  | 1.6265 |
| 3.4000        | 1.0364  | 3.647| 2.8416 | 0.0049 | 0.3176  | 1.7553 |
| 3.6000        | 1.1142  | 3.910| 2.8493 | 0.0048 | 0.3435  | 1.8849 |
| 3.8000        | 1.1919  | 4.177| 2.8537 | 0.0047 | 0.3687  | 2.0151 |
| 4.0000        | 1.2697  | 4.446| 2.8559 | 0.0047 | 0.3935  | 2.1459 |
Table A4.

*Predicting voting intention using the Johnson-Neyman Technique*

Moderator value(s) defining *Johnson-Neyman significance region(s):*

| Value | % below | % above |
|-------|---------|---------|
| 5.1343 | 87.2576 | 12.7424 |

*Conditional effect of politician’s perceived ideology on voting intention at values of the moderator (respondent’s political ideology):*

| RespIdeo | Effect | se  | t    | p    | LLCI  | ULCI  |
|----------|--------|-----|------|------|-------|-------|
| 1.0000   | -1.1465| .1475| -7.7702 | .0000 | -1.4367 | -.8563 |
| 1.3750   | -1.0632| .1309| -8.1197 | .0000 | -1.3207 | -.8057 |
| 1.7500   | -.9799 | .1153| -8.4994 | .0000 | -1.2066 | -.7531 |
| 2.1250   | -.8966 | .1010| -8.8731 | .0000 | -1.0953 | -.6979 |
| 2.5000   | -.8133 | .0889| -9.1496 | .0000 | -.9881  | -.6385 |
| 2.8750   | -.7299 | .0798| -9.1504 | .0000 | -.8868  |-.5731 |
| 3.2500   | -.6466 | .0748| -8.6419 | .0000 | -.7938  |-.4995 |
| 3.6250   | -.5633 | .0749| -7.5234 | .0000 | -.6106  |-.4161 |
| 4.0000   | -.4800 | .0799| -6.0066 | .0000 | -,.6372 |-.3229 |
| 4.3750   | -.3967 | .0891| -4.4525 | .0000 | -,.5719 |-.2215 |
| 4.7500   | -.3134 | .1013| -3.0936 | .0021 | -,.5126 |-.1142 |
| 5.1250   | -.2301 | .1156| -1.9907 | .0473 | -.4574  |-.0028 |
| 5.1343   | -.2280 | .1160| -1.9666 | .0500 | -.4561  |-.0000 |
| 5.5000   | -.1468 | .1313| -1.1183 | .2642 | -.4049  |,.1113 |
| 5.8750   | -.0635 | .1479| -.4293  | .6680 | -.3543  |,.2274 |
| 6.2500   | .0198  | .1652| .1200   | .9046 | -,.3050 |,.3447 |
| 6.6250   | .1031  | .1829| .5637   | .5733 | -.2567  |,.4629 |
| 7.0000   | .1864  | .2011| .9272   | .3544 | -.2090  |,.5819 |
| 7.3750   | .2697  | .2195| 1.2292  | .2198 | -.1618  |,.7013 |
| 7.7500   | .3531  | .2380| 1.4832  | .1389 | -.1151  |,.8212 |
| 8.1250   | .4364  | .2568| 1.6993  | .0901 | -.0686  |,.9414 |
| 8.5000   | .5197  | .2757| 1.8852  | .0602 | -.0224  |1.0618 |
B) Additional Analysis: Mere Presence

We used latent variables in structural equation modeling (in IBM SPSS AMOS 25): Politician’s perceived ideology (two items), voting intention (five items) [see methods section]. Voting intention was predicted by politician’s perceived ideology—simultaneously for those with \( n = 222 \) and without \( n = 139 \) the mere presence of SBCs.

Model fit (of the default model) was good:

Notes for Model (Default Model)

Computation of Degrees of Freedom (Default Model)

| Model          | NPAR | CMIN(\( \chi^2 \)) | df | p   | CMIN/df |
|----------------|------|--------------------|----|-----|---------|
| Default model  | 44   | 34,491             | 26 | .123| 1,327   |
| comparison     | 43   | 69,102             | 27 | .000| 2,559   |

Table B1.
_Model fit_

| Model    | RMSEA | LO 90 | HI 90 | PCLOSE |
|----------|-------|-------|-------|--------|
| Default model | .030  | .000  | .055  | .901   |
| comparison   | .066  | .047  | .085  | .082   |

Table B2.
_RMSEA_

| Model     | NFI Delta | RFI rho1 | IFI Delta2 | TLI rho2 | CFI |
|-----------|-----------|----------|------------|----------|-----|
| Default model | .987     | .980     | .997       | .995     | .997|
| comparison   | .975     | .961     | .984       | .976     | .984|

Table B3.
_Baseline Comparisons_

To formally test whether the size of the correlation is different in both conditions (i.e., with and without the mere presence of SBCs), we compared an unrestricted model (“default model”) with a model (“comparison”) in which we restricted the strength of the correlation to be equal in both groups. The change in \( \chi^2 \)-statistic was used to formally test whether the size of the correlation, the measure of the priming effect, differed depending on the mere presence of SBCs. The fit of the comparison-model was significantly worse, indicating a significant difference in the strength of the correlation: Table B4. Nested model comparison assuming model default model to be correct.
| Model    | df | CMIN(χ²) | p  | NFI  | IFI  | RFI  | TLI  |
|----------|----|----------|----|------|------|------|------|
| comparison | 1  | 34,611   | ,000 | .013 | .013 | .019 | .019 |