**Supplement**

### *Reaction times*

For exploratory analysis, a three-way ANOVA between *conflict* (incongruent vs. congruent) × *distraction* (emotional vs. neutral) as within-subjects factors and *specific* *emotion* (sadness vs. fear vs. achievement vs. erotic) as between-subjects factor was conducted.

Data reveal a significant main effect of *conflict* and *distraction* with *F*(3,130) = 11.856, *p* = .001,$η\_{p}^{2} $= .084 and *F*(3,130) = 10.382, *p* = .002,$η\_{p}^{2} $= .074, respectively. The interaction of *conflict* × *specific* *emotion* was not significant*, F*(3,130) = 1.594, *p* = .194, $η\_{p}^{2} $= .035. The interaction of *distraction* × *specific* *emotion* was significant*, F*(3,130) = 3.915, *p* = .010, $η\_{p}^{2} $= .083. Importantly, the interaction between *conflict* × *distraction* was significant*, F*(3,130) = 5.374, *p* = .022, $η\_{p}^{2} $= .040, demonstrating a modulation of ED by preceding congruency. Notably, the interaction between *conflict* × *distraction* × *specific* *emotion* was not significant *F*(3,130) = .949, *p* = .419, $η\_{p}^{2} $= .021.

Further analysis were conducted for each subset of emotion.

Data of trials with the set of frightening picture stimuli reveal a significant main effect of *conflict*, *F*(1,32) = 5.027, *p* = .032, $η\_{p}^{2} $= .136 (*M* = 540 ms, SE = 19 ms in incongruent trials and *M* = 534 ms, SE = 18 ms in congruent trials). The main effect of *distraction* was also significant, *F*(1,32) = 9.135, *p* < .005, $η\_{p}^{2} $= .222 (*M* = 533 ms after neutral stimuli, SE = 19 ms and *M* = 542 ms, SE = 19 ms, after emotional stimuli). The interaction of *conflict* × *distraction* was not significant, *F*(1,32) = .783, *p* = .383, $η\_{p}^{2} $= .024.

Data of trials with the set of sad picture stimuli neither reveal a main effect of *conflict*, *F*(1,35) = .001, *p* = .982, $η\_{p}^{2} $= .000 (*M* = 504 ms, SE = 11 ms in incongruent trials and *M* = 504 ms, SE = 11 ms in congruent trials) nor a main effect of *distraction*, *F*(1,35) = 1.911, *p* = .141, $η\_{p}^{2} $= .052 (*M*  = 506 ms, SE = 11 ms after neutral stimuli and *M* = 503 ms, SE = 11 ms after emotional stimuli) nor an interaction of *conflict* × *distraction, F*(1,35) = .267, *p* = .609, $η\_{p}^{2} $= .008.

Data of trials with the set of erotic picture stimuli reveal a main effect of *conflict*, *F*(1,35) = 6.346, *p* = .016, $η\_{p}^{2} $= .153 (*M* = 485 ms, SE = 12 ms in incongruent and *M* = 482 ms, SE = 11 ms in congruent trials) and a main effect of *distraction*, *F*(1,35) = 7.928, *p* = .008, $η\_{p}^{2} $= .185 (*M* = 480 ms, SE = 12 ms after neutral stimuli and *M* = 487 ms, SE = 12 ms after emotional stimuli, but no interaction between *conflict* × *distraction F*(1,35) = .472, *p* = .497, $η\_{p}^{2} $= .013.

Data of trials with the set of achievement picture stimuli reveal a significant main effect of *conflict*, *F*(1,28) = 4.771, *p* = .037, $η\_{p}^{2} $= .146 (*M* = 527 ms, SE = 16 ms in incongruent and *M* = 522 ms, SE = 16 ms in congruent stimuli). The main effect of *distraction* was not significant, *F*(1,28) = 1.466, *p* = .236, $η\_{p}^{2} $= .050 (*M* = 526 ms, SE = 16 ms after neutral stimuli and *M* = 523 ms , SE = 16 ms). The interaction between *conflict* × *distraction* was significant, *F*(1,28) = 4.814, *p* = .037, $η\_{p}^{2} $= .145. ED in incongruent trials was reduced (*M* = -7 ms, SE = 3 ms) compared to congruent trials (*M* = 2 ms, SE = 3 ms) (see Table 1).

### *Error Rates*

Analogous analysis was performed on error rates. The three-way ANOVA with *conflict* × *distraction* × *specific* *emotion* revealed a significant main effect of conflict, *F*(3,130) = 8.896, *p* = .002, $η\_{p}^{2} $= .071. No other main and interaction effects reached significance (all *p*s > .05).

Further analysis were conducted for each subset of emotion.

Data of the experiment with the set of frightening picture stimuli reveal a significant main effect of *conflict*, *F*(1,32) = 6.837, *p* = .014 , $η\_{p}^{2} $= .176 (*M* = 7.2 %, SE = 1% in incongruent trialsand *M* = 8.0 %, SE = 1% in congruent trials). No other main and interaction effects reached significance (all *p*s > .05).

**Table 1.** *Mean RTs and Error Rates in the four subcategories of emotion*

|  |  |  |
| --- | --- | --- |
|  | **RT Data**  |  |
| incongruentemotional |  | incongruent neutral |  | congruentemotional |  | congruent neutral |
| M [ms] | SE [ms] |  | M [ms] | SE [ms] |  | M [ms] | SE [ms] |  | M [ms] | SE [ms] |
| fear | 544  | 18  |  | 537  | 19 |  | 540  | 19  |  | 529  | 18  |
| sad | 505 | 11 |  | 503 | 11 |  | 506 | 11 |  | 502 | 11 |
| erotic | 488 | 12 |  | 482 | 12 |  | 486 | 11 |  | 478 | 12 |
| achievement | 523 | 16 |  | 530 | 16 |  | 523 | 17 |  | 478 | 12 |
|  | **Error Rates**  |  |
| incongruentemotional |  | incongruent neutral |  | congruentemotional |  | congruent neutral |
| M[%] | SE [%] |  | M [%] | SE [%] |  | M [%] | SE [%] |  | M [%] | SE [%] |
| fear | 7.2  | 1  |  | 7.1  | 1 |  | 8.1  | 1  |  | 7.8  | 1  |
| sad | 8.5 | 0 |  | 9.1 | 0 |  | 9.4 | 0 |  | 9.1 | 0 |
| erotic | 6.1 | 1 |  | 6.4 | 1 |  | 7.2 | 1 |  | 6.6 | 1 |
| achievement | 5.2 | 1 |  | 5.2 | 1 |  | 5.2 | 1 |  | 5.5 | 1 |

*Note.* Mean RTs and Error Rates in the discrimination task following incongruent flanker trials and emotional pictures, incongruent flanker trials and neutral pictures, congruent flanker trials and emotional pictures, congruent flanker trials and neutral pictures.