Supplement

Supplementary analyses of Experiment 2

We also analyzed Task 1 performance with data sets ($n = 53$) that had a minimum number of 10 observations in each cell of the 2 (S1 valence) x 2 (S1 arousal) x 2 (E2 valence) factorial design (see Table S1 for the means). In the ANOVA of the RTs, the main effect of S1 arousal and the interaction between S1 arousal and S1 valence were significant, with $F(1, 52) = 19.41$, $p < .001$, $\eta_p^2 = .272$, and $F(1, 52) = 31.35$, $p < .001$, $\eta_p^2 = .376$, respectively. Participants categorized high-arousing negative pictures faster than low-arousing pictures, and low-arousing positive pictures faster than high-arousing positive pictures, replicating previous results (Eder & Rothermund, 2010; Robinson, Storbeck, Meier, & Kirkeby, 2004). The interaction effect between S1 valence and E2 valence approached significance, $F(1, 52) = 2.97$, $p = .091$, $\eta_p^2 = .054$. Other effects were far from significance ($Fs < 1$). In an analogous ANOVA of the error rates, only the main effects of S1 valence (less errors to negative slides) and S1 arousal (less errors to high-arousing slides) reached significance, with $F(1, 52) = 4.19$, $p < .05$, $\eta_p^2 = .075$, and $F(1, 52) = 16.85$, $p < .001$, $\eta_p^2 = .245$, respectively. Neither the interaction between S1 valence and E2 valence, $F(1, 52) = 1.03$, $p = .32$, nor any other effect was significant (largest $F = 1.43$, $ps > .20$).

Table S1

Mean reaction times (in ms) and error rates (in percent) in Task 1 as a function of S1 valence, S1 arousal level, and E2 valence. Data are from Experiment 2 (n = 53).

	Positive S1		Negative S1	
Arousal:	low	high	low	high
Pleasant E2	582 (68)	582 (70)	591 (69)	579 (73)
	4.3 (4.0)	2.4 (3.2)	3.5 (4.4)	2.5 (4.1)
Unpleasant E2	584 (68)	586 (71)	589 (70)	576 (71)
	5.1 (5.3)	3.1 (4.5)	3.7 (3.8)	2.4 (2.8)

Bin-analysis of the R1-R2 interval (Experiment 2)

A quartile analysis examined whether strategic response decisions affected the magnitude of crosstalk between the tasks on the trial level. Time intervals between R1 and R2 were sorted into four RT bins (quartiles) for each individual from lowest to highest and a BCE was computed for each bin by subtracting RT1 in congruent trials from RT1 in incongruent trials. Data from two participants were removed from this analysis due to insufficient data points, leaving a final sample of $n = 60$ participants. A repeated-measures ANOVA of the BCEs with bin as factor showed no difference, $F(3, 177) = 0.83$, $p = .48$; and no linear, quadratic, or cubic trends (largest $F = 1.21$, all $ps > .20$). Thus, the BCE was relatively stable across bins (see Figure S1), suggesting that strategic response decisions were not a driving factor of the BCE in this experiment.
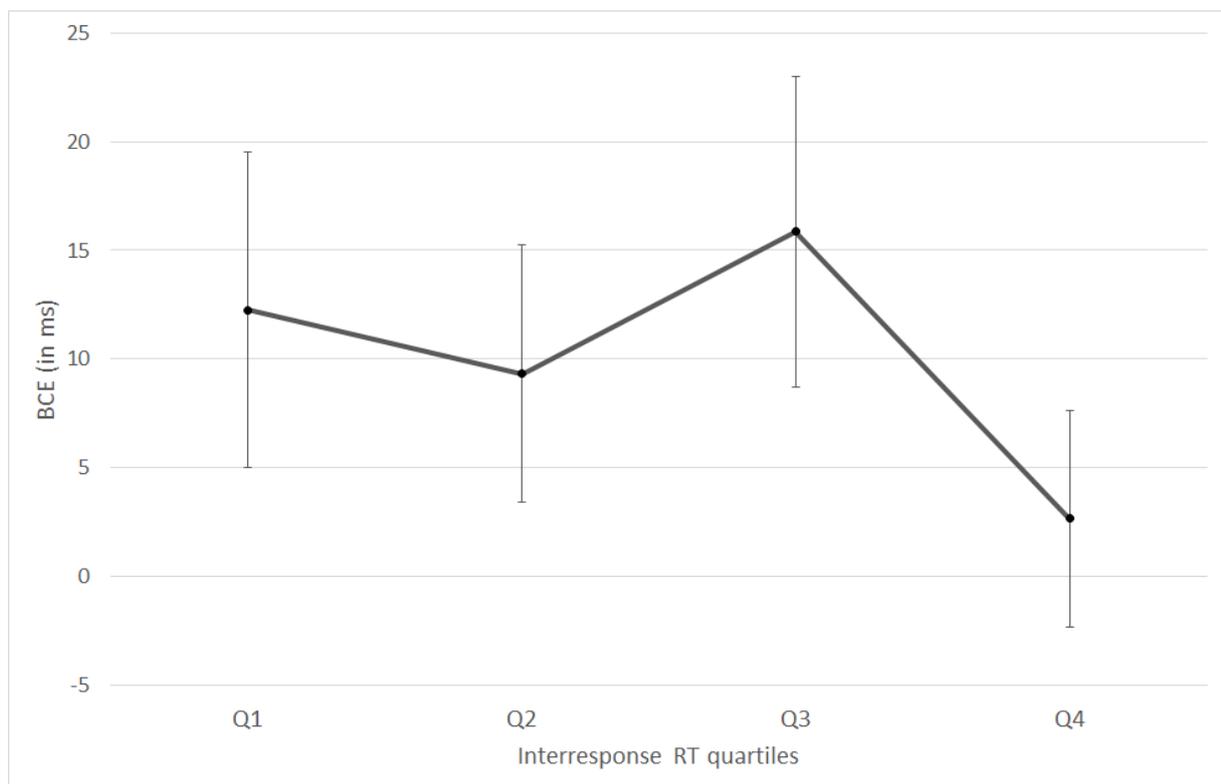

Figure S1. Bin analysis of BCEs in Experiment 2. Error bars show the standard error.