Supplemental Material

Mixed Effects Model Specification
      Below we report the syntax used for the mixed-effects regression on switch costs using the lmer() function in the lme4 package for R in Experiment 1:

```
log_switch_cost ~ reward*switch_rate*early_late + (1|subj) + (0+reward|subj)
+ (0+switch_rate|subj) + (0+early_late|subj)
```

Below we report the syntax used for the mixed-effects regression on incongruence costs in Experiment 2:

```
log_incongruence_cost ~ reward*proportion_congruent*early_late + (1|subj) +
(0+reward|subj) + (0+proportion_congruent|subj) + (0+early_late| subj)
```

Follow-up Analysis: Fatigue
      We also carried out a general examination of evidence for fatigue—indexed by RT slowing as a function of time on task across both demand contexts, following Lorist and colleagues (2005). In Experiment 1, we did not find evidence for an overall slowing effect as a function of time-on-task, even after controlling for trial type (task switches versus repetition) or demand context (main effect of trial number β= -0.02919, *SE*= 0.01563, *p*=0.0657). Similarly, we found no evidence for a slowing effect in Experiment 2, also controlling for trial type (congruent versus incongruent) or demand context (main effect of trial number β=-0.0017, *SE*= 0.01563, *p*= 0.6225).

References
Lorist, M. M., Boksem, M. A. S., & Ridderinkhof, K. R. (2005). Impaired cognitive control and reduced cingulate activity during mental fatigue. *Cognitive Brain Research*, *24*(2), 199–205.