Supplemental Material

To investigate potential order effects that might be indicative of desensitization to contextual predictability, an exploratory analysis was conducted. ERP data of each participant (*N* = 30) were split into approximate first and second halves of the experiment, and pairwise testing was used to compare mean amplitudes of the two experiment halves over the 3 time windows, at the 3 ROIs, for each of the 5 experimental conditions. Each subsequent *F*-test had (1, 29) degrees of freedom. Significant (\**p* < .05) order effects were observed for CU, AR, and AU items in the 900-1200 ms time window at prefrontal scalp locations (see Supplemental Figure 1), with marginal effects (*mg*, .05 < *p* < .10) also observed for the CU and AR conditions in earlier time windows at prefrontal scalp locations, as well as for best completions (BC) at occipital sites between 600-900 ms. All remaining statistical tests were non-significant (*p* > .10). All of the significant and marginal prefrontal effects showed reduced ERP positivity over the second half of the study relative to the first. Interestingly, these patterns were observed not only for the CU condition, where aPNP effects were detected in our main analyses, but also for anomalous items. Notably, no significant order effects were observed for CR items. Although this analysis is exploratory and these results should be evaluated with caution, they hint at the neural processing indexed by the aPNP potentially adapting to the decreased likelihood of predictions being confirmed by the input over the course of an experiment. They also suggest that stimulus proportions may play some role in the observability of aPNP effects. Further research will be required to assess these possibilities.

Supplemental Figure Caption

*Supplemental Figure 1.* ERP mean amplitudes plotted in bar graph form, comparing items from the first and second experiment halves for each of the 5 experimental conditions, at the 3 ROIs, for the 3 time windows used in main statistical analyses. *F*-tests with statistically significant (\**p* < .05) and marginal (*mg*, .05 < *p* < .10) results are boxed in green: all other tests are non-significant (*p* > .10). Error bars indicate *SEM*.