We examined the impact of minimal context on the brain’s responses to fulfilled or unfulfilled predictions during comprehension. Proper names were paired with verbs that were either predictive or not predictive of a specific direct object noun (John evacuated...vs. John departed...). Nouns were either predictable (John evacuated the BUILDING), unpredictable but plausible (....the SUBWAY), or they violated selection restrictions of the verb (...the PASTE). We observed semantic facilitation on predictable nouns, as reflected by a selective reduction of the N400 amplitude. However, unlike context effects observed in discourse contexts, later positivities were not robustly elicited on nouns that either violated the verb’s lexical predictions or its selection restrictions. Thus, minimal context based on the lexical properties of a verb may not provide enough time or promote a rich enough representation of context for the brain to generate and commit to specific lexical or event structure predictions during online comprehension.