Supplemental Material S1. Information regarding the stimuli, including selection protocol, trial ordering, and semantic relatedness and association measures.

Selection of Picture and Word Stimuli

Based on the criteria outlined in the article, 60 candidate word pairs were generated for the study. Sixty photo-realistic images were chosen to represent each of the candidate words. We asked three children with TD and one child with SSD (ages 4–5 years) to name the 60 pictures. The 30 pictures named with the highest accuracy were chosen for inclusion in the study. Twenty-five of the selected pictures were named with the intended word by at least three children, and five were named by one or two children. Overall, the four children named the 30 selected pictures with the intended target word on 86% of presentations. The five words named by one or two children ("wheel," "lick," "ribbon," "robber," and "soup") had a mean age of acquisition of 5.01 years (SD = 0.63, range = 4.30–5.74), which was not significantly different from the other 25 stimulus words, $t(28) = -1.49$, $p = .15$.

Trial Order Across the Experiment

Trials were ordered such that each of the four trial types formed by a pair of lexical mismatch stimuli were distributed across the experiment (e.g., lexical match *picture* leaf, spoken "leaf" was separated from lexical mismatch *picture* wheel, spoken "leaf"). To ensure separation, the 60 trials were divided into four blocks of 15 trials each. Condition and error type were balanced across blocks. Each block was placed in the first and second half of the experiment on two separate lists. In List A, block order was 1, 2, 3, 4 in the first half and 2, 1, 4, 3 in the second half. List B had the halves reversed with 2, 1, 4, 3 in the first half, and 1, 2, 3, 4 in the second half. Within each block, trials were pseudorandomized such that there were no more than two consecutive trials of the same error type (s/t, r/w, l/w), no more than two trials of the same type (lexical match, lexical mismatch, phonetic match, phonetic mismatch), and no more than three consecutive trials with the same correct judgments (yes or no). Lists A and B were counterbalanced across participants.

Semantic Relatedness and Association of Words for Lexical Mismatch Condition

In the lexical mismatch condition, paired words (picture prime and spoken target) were assessed for semantic relatedness and association to ensure the picture did not prime the paired spoken word. Semantic relatedness was assessed using the pairwise comparison application of the Latent Semantic Analysis @ CU Boulder website (Laham, 1998). Latent semantic analysis provides an estimate of word similarity by comparing the contexts in which words do or do not appear (Landauer, Foltz, & Laham, 1998). "General Reading up to 3rd Grade" was selected as the topic space, or set of word context sources, because it was the closest match to the participant age range (Laham, 1998). For each word pair in the lexical mismatch condition (e.g., "wheel," "leaf"), a similarity score from –1 to 1 was returned as an estimate of their semantic relatedness. A similarity score of 0 indicates no semantic relatedness between the words. The 15 lexical mismatch word pairs had a mean semantic relatedness of .05 (SD = .07, range = –.07 to .25), suggesting the lexical mismatch stimuli were not semantically related as intended.

In addition, the semantic association of the lexical mismatch word pairs was assessed using the University of Florida Free Association Norms website (Nelson, McEvoy, & Schreiber, 1998). These norms were created by providing participants with a cue word and asking them to provide "the first word that came to mind that was meaningfully related or strongly associated to

the presented word" (Nelson et al., 1998). This resource was used to find words associated with each of the lexical mismatch stimuli. Twenty-eight of the thirty words were listed in this resource. "Seahorse" and "sailboat" were not available. None of the 28 available words were associated with the paired word in the lexical mismatch condition. For example, when "leaf" was the cue word, "wheel" was not a listed associate, and when "wheel" was the cue word, "leaf" was not an associate. These measures confirmed that the lexical mismatch stimuli were not semantically related or associated. This means that the words presented in this condition should not prime one another and therefore a larger mean amplitude N400 elicited by the lexical mismatch compared to the lexical match condition was expected.