Syntagmatic compounds of the type N Prep N, such as charbon de bois 'charcoal' or jouet d'enfant 'toy' are a very productive type of compounding in Romance languages. Still, they remain one of the most problematic issues of Romance word formation. This is primarily due to the fact that syntagmatic compounds may have the same overall structure as nominal syntagmas. The present talk aims to focus on the alternation between schwa and zero in the clitic de as a distinguishing feature between syntagmatic compounds and nominal syntagmas. The occurrence or deletion of schwa in French clitics depend on multiple factors, such as the position of schwa in the word, the number of syllables of the word, the number and structure of the surrounding consonant clusters, the prosodic structure of the word as well as its position in the rhythmic group (see Projet PFC). According to Bouvier, there are numerous cases in which schwa is optional in compounds and free syntagmas, such as chemin de/d’fer ‘railway’ and chemin de/d’pierre ‘stone path’ (Bouvier 2000:182). But Côté and Morrison remark that there is a “greater likelihood for schwa to be pronounced inside phonological words than at edges” (Côté & Morrison 2007: 182). In the present talk, the role of schwa realization in the delimitation of syntagmatic compounds from nominal syntagmas will be exemplified by means of experimental data from an eye-tracking reading task. It will be discussed if schwa realization may indeed shed new light on the delimitation of morphological processes and syntactic processes.