The need to assess similarity in word meaning is central to many language technology applications, and distributional methods have been shown to be a very successful approach to the task. The question of assessing meaning similarity above the word level within the distributional paradigm has received a lot of attention in recent years. Compositional frameworks, which define operations to combine word vectors into representations for phrases, have achieved some success in capturing similarities between phrases or simple sentences. But are these methods robust enough to scale up well to complex sentences? Will the final vector representations of the sentences be rich enough to allow a direct comparison of the sentences or should we also make use of the intermediate vector representations of the constituents of the sentences when comparing them?

In this project, we attempt to answer the above questions and propose a method to address the problem of computing sentence similarity by combining Compositional Distributional Semantics and Tree Kernel methods.