A number of studies over the past decade has established that language processing takes advantage of information coming from our sensory and motor systems. Hence, hearing a sentence such as “Susan writes a letter” triggers activity in brain regions that are typically involved in the planning/execution of a hand action.

In motor control such ‘language-sensitive’ motor structures serve prediction and verification. They can be used to run ‘simulations’ of actions without overtly executing them (cf. motor imagery). Interestingly, studies with musicians and athletes have shown that despite of not executing the action, such motor imagery can improve performance. If language-processes have access to these modality-specific brain structures they should thus have a similar potential to modify performance.

The present research project aims at testing these assumptions by analyzing consequences of consuming literary fiction on mind and behavior. In particular, we will work with a population that cannot voluntarily create mental images (cf. ‘Aphantasia’) and compare this population to normally developing individuals. This comparison will shed light on the role of modality specific brain regions in language understanding.