

A Phenomenologically-Inspired Computational Analysis of Self-Categories in Text

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Abstract

The self is a pervasive aspect of human experience, influencing crucial areas like mental health and manifesting in the texts we produce. Previous research indicates a significant correlation between the use of self-related expressions—terms and linguistic structures individuals use to refer to themselves, such as first-person pronouns—and various personal attributes, including personality traits, mental states, and psychological disorders. These findings enable the construction of simple yet explainable and effective representations, which can be later utilised for downstream tasks like classification, clustering, and segmentation. We present an approach to investigate the self in text data in a more detailed manner, expanding its understanding by adopting aspects of the self as defined by cognitive science and phenomenology. We employ the large language model GPT3.5 to classify text as to whether it presents these self-aspects, and we analyse the obtained splits with LIWC-22. This exploratory study aims to bridge the gap between the knowledge about using self-references in text, Natural Language Processing techniques and applications, and the phenomenological understanding(s) of the self, opening new venues in all three directions.

Keywords: self, statistical analysis, phenomenology, classification, large language models