

Identity In Dialogue: Using Semantic Role Labelling to Construct a Moral Framework

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How can one identify moral values? Does dialogue betray some notion of an individual's moral orientation? This poster proposes a computational method to extract normative evaluations from natural language and construct a moral framework for fictional characters or for a human author. Operating within the StorMinG framework [1], this project is largely influenced by Charles Taylor and intends to be a first empirical approach to apply the concept of *moral frameworks* [2] to the field of NLP. Taylor describes moral frameworks as an essential and inescapable element of an individual's identity. Because they constitute one's identity, frameworks play an important role in decision making, i.e., in the valuation of consequences and goal planning. Our model of moral frameworks relies on *strong evaluations*: qualitative and normative distinctions an individual makes about the moral value of properties of the world. The goal of this project is to construct a representation of an individual's moral values for applications in personality simulation for interactive storytelling, and as an empirical tool for the digital humanities.

The proposed method uses a PropBank[3]-trained Semantic Role Labelling (SRL) tool to identify predicates and label the thematic relations bound to it. A mixed approach is then used to identify arguments that select strongly for moral evaluations. The identification criteria include judgement-oriented verb classes identified using VerbNet [4], normative inducing adverbials, and moral nouns. Sentiment analysis is performed on the selected arguments to determine the positive or negative relationship of the individual to the object of moral valuation. The data is stored as a relational network connecting individuals to moral objects with edges weighted by sentiment. By selecting n binary pairs of moral objects, we transform the data into a Cartesian coordinate system in n -dimensional space. The inferred moral orientation of individuals is plotted in this manner and compared with assessments obtained by a human expert panel to measure the success of the method.

References

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