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### **RESEARCH ARTICLE**

# Performance Analysis of two Anaphora Resolution System for Hindi Language

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**Abstract**— *One of the challenges in NLP is to determine what entities are referred to in the discourse and how they relate to each other. This is known as Anaphora resolution. Basically there are three main algorithms for anaphora resolution- Hobbs, Centering and Lappin Leass algorithm. This paper presents the comparison of two computational models for resolving anaphora. The first model is based on the concept of Lappin and Leass algorithm and the second model is based on the concept of Centering algorithm. Both of these model works on Hindi language. As Hindi language is quiet complicated with respect to other European languages, there are many factors needed to be considered for resolving anaphora. Our computational models uses Recency factor as a salient factor. An experiment is conducted on short Hindi stories and the comparative result for both the models is summarized. The respective accuracy for both the model is analyzed and finally the conclusion is drawn for the best suitable model for Hindi Language.*

**Keywords:** *Anaphora; Centering algorithm; Discourse; Lappin Leass algorithm; Natural language processing*

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