

Sixth Annual CFL Distinguished Visitor Lecture

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Computational Analysis of Cognitive Style

What can we know about a person based on how they use language? Can we go beyond mere attribution of authorship (still not an easy question) to get an idea of what sort of person they are, how they think? Being able to obtain such an assessment of a person or group's "cognitive style" would enhance criminal profiling and improve intelligence assessments for international security, among other significant applications. While practical forensic application is still in the future, we have made real progress towards this goal.

In this lecture, I will discuss three experimental studies that aim at this goal in different ways. First, I will describe experiments in classifying documents according to the personality of the author – this is a very difficult task, as even trained experts have trouble determining personality from interviews. Second, I will describe how we identified different modes of scientific thinking by analyzing scientific writing styles. Finally, I will talk about our recent work on identifying and analyzing metaphors in different languages, and how understanding metaphor usage can give insight into how different people and cultures see the world differently.