

## **UC Merced**

### **Proceedings of the Annual Meeting of the Cognitive Science Society**

#### **Title**

Outcome of Globalization: Evidence for a Second Language Advantage in Reading and Comprehension from An Eye Tracking Study

#### **Permalink**

<https://escholarship.org/uc/item/6qd7s07r>

#### **Journal**

Proceedings of the Annual Meeting of the Cognitive Science Society, 45(45)

#### **Authors**

Agrawal, Akshan  
Agrawal, Niket  
Verma, Ark

#### **Publication Date**

2023

Peer reviewed

# Outcome of Globalization: Evidence for a Second Language Advantage in Reading and Comprehension from An Eye Tracking Study

**Akshan Agrawal**

Indian Institute of Technology Kanpur , Kanpur, Uttar Pradesh, India

**Niket Agrawal**

Indian Institute of Technology, Kanpur, Uttar Pradesh, India

**Ark Verma**

Indian Institute of Technology Kanpur, Kanpur, Uttar Pradesh, India

## Abstract

Previous eye-movement research on reading and comprehension typically reports better performance in L1 as compared to L2 reading. However, the same may not be true in cases where knowing and reading a second language is necessary for acquiring education. To explore this issue, we asked 10 normal participants to read a text in Hindi (L1) and English (L2) in a naturalistic reading paradigm while their eye-movements were being recorded. The stimulus set for a word-level analysis was around 2000 words in each language. The aim of the study was to test efficiency of reading in both the languages and compare them. Results revealed reading advantage for L2 for all eye-movement dependent variables (average and trial level fixation counts, gaze duration and run counts). The results were also correlated with independent variables like frequency (zipf) and word complexity score (length) in both languages.