Cognitive Mechanisms in Bilingual Language Processing

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Abstract. This study examines the cognitive mechanisms involved in bilingual language processing, focusing on how bilinguals manage and switch between languages. Utilizing neuroimaging techniques and behavioral experiments, the research reveals insights into the neural and cognitive processes underpinning bilingualism. The findings enhance our understanding of bilingual language processing and its implications for cognitive flexibility and language learning.

Keywords: bilingualism, language processing, cognitive mechanisms, neuroimaging, language switching

Introduction

Bilingual individuals possess the unique ability to manage and switch between two languages, a process that involves complex cognitive mechanisms. This study investigates these mechanisms, exploring how bilinguals process language and manage interference between languages. By employing neuroimaging techniques and behavioral experiments, we uncover the neural and cognitive processes that underpin bilingual language processing. The research provides valuable insights into the cognitive flexibility associated with bilingualism and its implications for language learning and cognitive development.

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