

association between code-switching attitudes and visual working memory provides support for previous studies showing code-switching as a disadvantage to cognition. Results of this study suggest that detailed characterization of sociocultural factors and aspects of bilingualism can provide further clarity in determining if there is a potential bilingual cognitive advantage. Future research should examine the relationship of code-switching with other aspects of bilingualism (e.g., age of acquisition).

Categories: Cross Cultural Neuropsychology/
Clinical Cultural Neuroscience

Keyword 1: bilingualism/multilingualism

Keyword 2: executive functions

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7 A Comparison of Performance of Educationally Disadvantaged Non-English-Speaking Participants on a Category Verbal Fluency Test using English or the First Language

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Objective: South Africa has a multi-lingual population where fewer than 10% of the population speak English as a first language. This poses a challenge regarding language usage for a verbal fluency task. This study investigated the difference in number of words produced by independent groups of non-English examinees required to produce words in English, or in their first language, on a category verbal fluency task.

Participants and Methods: A study on South African non-English first language participants was conducted using the Category Verbal Fluency test (animals) for a sample of nonclinical adults ($N = 264$) aged 18-60 years with 8-12 years of disadvantaged (poorly resourced) quality of education. Participants either had an African indigenous first language, or Afrikaans (a Dutch derivative) as a first language. The data were derived from one group of either African indigenous or Afrikaans first language participants who were required to use English for word production (Group A

English) ($n = 159$; African indigenous $n = 135$; Afrikaans $n = 24$) and another group of participants who were required to use their first language (Group B First Language) ($n = 105$; African indigenous $n = 83$; Afrikaans $n = 22$). The comparative data were stratified for age ranges 18-20, 21-30, 31-40, 41-50 and 51-60 years. Level of education was broadly equivalent across the comparative groups. T-test analyses compared the number of words produced between the English versus indigenous African groups, and English versus Afrikaans first language groups for each age category.

Results: The comparison for the indigenous African first language participants, revealed no significant differences in word production for words produced in English or first language regardless of age. In the comparison for the Afrikaans first language participants there was a highly consistent tendency for better word production in Afrikaans than in English. These results indicate that socio-cultural factors may be influential for English language proficiency on a verbal fluency task, rather than the effect of first language usage "per se".

Conclusions: Since the dismantling of the Apartheid system in South Africa thirty years ago, English has become the main language used in government and business and is the preferred language of tuition in schools for those speaking English or an African indigenous language, whereas during the Apartheid era, two official languages were used for government, business, and schooling (Afrikaans and English). Currently, many Afrikaans speaking individuals continue to have Afrikaans as the preferred primary language of tuition in the schools and it persists as the preferred language for use in many Afrikaans dominated business arenas. This study attests to a high level of English fluency amongst those South Africans with an indigenous African first language, who clearly are as fluent in word production using English as they are when using their first language, in contrast to the indications for Afrikaans speaking individuals. Practitioners need to be alert to sociocultural factors that can impact on the optimal use of language in test situations, which may not necessarily be the first language.

Categories: Cross Cultural Neuropsychology/
Clinical Cultural Neuroscience

Keyword 1: language: second/foreign

Keyword 2: normative data

Keyword 3: assessment

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Symposium 01: Neuropsychological Outcomes Following Pediatric Stroke: Research Trends and Advances

9:00 - 10:30am
Thursday, 2nd February, 2023
Pacific Ballroom A

Chair

Claire Champigny
York University, Toronto, Canada

Discussant

Justine Ledochowski
York University, Toronto, Canada
Leila Kahnami
York University, Toronto, Canada

Summary Abstract:

Stroke is an important cause of acquired brain injury in youth and a significant source of childhood disability. Up to 80% of survivors suffer long-term neurological deficits, including impairments across a range of neuropsychological domains. An improved understanding of neuropsychological outcomes is key to optimizing clinical care, improving evaluation of prognosis, and developing effective rehabilitation and intervention strategies.

The proposed symposium will begin with a literature review on neuropsychological outcomes following pediatric stroke. Next, four studies will be presented, each posing distinct and complementary research questions regarding predictors of outcomes. The roles of both clinical (e.g., lesion size, motor impairment, inflammatory response) and environmental factors (e.g., socioeconomic status, family functioning) will be explored regarding cognitive, social-emotional, and behavioral outcomes. The symposium will end with a Q&A period.

Attendees will leave with an in-depth understanding of recent trends and scientific advances in research on neuropsychological outcomes in pediatric stroke, which should inform clinical practice and research directions. The first presentation examines predictors of neuropsychological outcomes following pediatric stroke. Findings have often conflicted, and more research is needed to disentangle the effects of predictors on specific domains. Explored predictors include: age at stroke; stroke subtype (hemorrhagic vs. ischemic); lesion location; lesion size; time since stroke; neurologic severity; seizure disorder; and socioeconomic status. This study examines the impact of these predictors on distinct neuropsychological domains.

The next presentation addresses associations between neuropsychological outcomes and motor functioning following pediatric stroke. The development of cognitive and motor skills is interrelated and they share common neural substrates. In other populations, motor functioning predicts intellectual ability, and brain connectivity underlies this association. This study investigates associations between motor functioning and global neuropsychological outcomes in children with stroke and explores clinical features associated with motor impairments.

The third presentation explores mental health outcomes. Neuropsychological deficits can hinder academic advancement and social-emotional development and may place youth at increased risk for psychological concerns. An increased focus on mental health is warranted given that psychosocial and behavioral issues are often the most concerning problems for parents and teachers. This study uses a qualitative paradigm to shed light on lived experience of youth with stroke with a focus on mental health, relationships, and social competence.

The fourth presentation consists of a systematic review exploring the association between inflammatory response and neuropsychological outcome. Stroke induces an inflammation in the central and peripheral nervous systems, and high levels of inflammatory markers following stroke have been associated with poorer cognitive outcomes. This study reviews the state