An Exploration of Cognitive Resilience in At-Risk Children from Diverse Linguistic Backgrounds

Among linguistically diverse children not considered at-risk, current research suggests that their cognitive development can be positively influenced by their consistent exposure to two or more languages (Adescope, Lavin, Thompson, & Ungerleider, 2010). This promotion of cognitive development in linguistically diverse children is not well understood, however, in populations considered at-risk due to lower socioeconomic backgrounds (Lipina & Colombo, 2009) or the presence of a condition impacting cognitive development (i.e., Attention-Deficit/Hyperactivity Disorder, Learning Disabilities; i.e., Brosnan et al., 2002; Willcutt, Doyle, Nigg, Faraone, & Pennington, 2005). Linguistic diversity is also not commonly included in discussions about resilience in at-risk children (Engel de Abreu, Cruz-Santos, Tourinho, Martin, & Bialystok, 2012).

The proposed project is a pilot study examining the relationship between the cognitive skills, linguistic diversity, and sociocultural backgrounds of children considered at-risk in the greater Vancouver area. The overarching **objective** of the proposed research is to determine whether linguistic diversity may serve as a potential *cognitive asset* (or promoter of cognitive resilience) in children at-risk for poor developmental outcomes. Child participants (ages 5-8 years) and their parents/guardians will be drawn from schools and organizations within linguistically diverse communities also labeled as vulnerable (or at-risk). Information will be collected regarding participants' cultural, linguistic, and socioeconomic backgrounds and current cognitive development.

This project will address the following **research questions**:

1. What is the relationship between children 's linguistic background and their performance on executive functioning tasks in an at-risk sample?
2. Does linguistic background uniquely predict executive functioning task performance in light of other variables with identified strong relationships with executive functioning (i.e., socioeconomic status, presence of a neurodevelopmental condition)?
3. Does linguistic background accurately distinguish between children who do (and do not) exhibit cognitive resilience on executive functioning tasks?

This project will utilize *quantitative research methods* to address these questions. The **importance of this research** is apparent due to the current and growing linguistic and cultural diversity of Vancouver, Canada, and North America and the importance of increasing the knowledge base regarding the developmental implications of this diversity.

This research will focus on a subset of cognitive skills that can influence success across academic, vocational, social, and emotional sectors (Anderson, 2002; Blair & Razza, 2007). These skills, referred to as "executive functions," are necessary for long-term and goal-oriented behavior. Not only are executive functioning (EF) skills crucial due to their wide impact, they are also often impacted by the adverse experiences discussed earlier (i.e., poverty and neurodevelopmental conditions), meaning children coming from these backgrounds are at-risk for EF difficulties (i.e., Brosnan et al., 2002; Willcutt et al., 2005). Given the importance of EF skills and the risk for atypical EF in children from these backgrounds, it is very important that cognitive assets be identified and well understood. This understanding can, in turn, assist in the development and implementation of effective, evidence-based intervention efforts among at-risk children. The outcomes of this study will be communicated through written summaries, scholarly papers, and publications for lay and professional audiences. Presentations will also be offered at the participating community organizations and schools, directed towards staff and parents/guardians.