SOCIAL SENSITIVITY IN BILINGUAL CHILDREN

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BACKGROUND
KEY TERMS

Executive Functioning
Social Cognition
Referential Communication
Theory of Mind
Social Sensitivity
EXECUTIVE FUNCTIONING

- The ability to achieve one’s goals using sets of cognitive processes such as inhibitory control, selective attention, working memory, planning and organization
SOCIAL COGNITION

• The ability to process and retrieve information from social interactions (Goetz, 2003; Frith, 2008; Weil, 2012)

• Theory of Mind
THEORY OF MIND

- The ability to recognize and attribute mental states to oneself and to others, and how to understand that others have different mental states from their own (Perner & Lang, 1999; Goetz, 2003; Weil, 2012; Kovacs, 2009)
  - Belief, intent, desires, pretending, knowledge
  - Perspective taking skills

Source: Saxe, 2008
REFERENTIAL COMMUNICATION

• The exchange of information between individuals
  • The speaker provides enough information to the listener to ensure the listener can identify the entities, locations and movements
SOCIAL SENSITIVITY

• The ability to accurately perceive and comprehend the behavior, feelings and motives of other individuals (Rothenberg, 1970; Genesee & Lambert, 1975; Kovacs, 2009)

• Why is this important?
  • Important social skill to communicate effectively
PREVIOUS FINDINGS

• Bilingual children exceed monolingual peers in executive functioning tasks (Hukata, 1971; Perner & Lang, 1999; Bialystok, 2001; Blakemore & Choudhury, 2006)

• Bilingual children have better communication skills (Greenberg, Bellena & Biaylstock, 2003; Goetz, 2003)

• Studies in which use a monolingual, exposure, and bilingual group find similarities of advantages in both the exposure and bilingual group (Genesee & Lambert, 1975; Liberman, Woodward, Keysar, & Kinzler, 2017)
KNOWLEDGE GAP

- Research is limited to measuring one construct measure social sensitivity with monolingual and bilingual children
- Ambiguous understanding if executive functioning effects communication tasks
- No research as of date measuring children’s degree of bilingualism
• Develop further understanding of how social sensitivity increases with the level of language exposure and proficiency
METHODS
DESIGN OVERVIEW

• Children participants (5-7 years)
• 30+ participants
• Recruitment through the Children’s Research Lab
• Control for SES & IQ
INDEPENDENT AND DEPENDENT VARIABLES

I.V.
- Degree of Bilingualism
- Executive Function score

D.V.
- Communication Task
- Cognitive Perspective Taking Task
As the degree of bilingualism increases, scores will also increase from the executive function task, cognitive perspective taking task, and referential communication task.
MATERIALS & PROCEDURE

• Parent Questionnaire
• Child Questionnaire
• Raven’s Coloured Progressive Matrices
• Executive Function Task
  • The Flanker Task
• Perspective Taking Task
  • The Three Mountain Problem
• Referential Communication Task
PARENT QUESTIONNAIRE

• Language History
• Language Use
• Language Proficiency
• Education
• Additional Comments
CHILD QUESTIONNAIRE

Child Language Questionnaire

1. What languages do you speak with your friends/classmates?
   - English
   - Spanish
   - Both

2. Do you speak another language with your friends/classmates?
   - Yes
   - No
   - What language?

3. In which language do you prefer to read?
   - English
   - Spanish
   - Both

4. Do you like to read in any other language?
   - Yes
   - No
   - What language?

5. Which language do you feel more comfortable using?
   - English
   - Spanish
   - Both

6. Which is your favorite language?
   - English
   - Spanish
   - Both
RAVEN’S COLOURED PROGRESSIVE MATRICES

- Contains 36 geometric designs with a missing piece
  - Most of the items are colored
- Estimates fluid intelligence
FLANKER TASK

- Response inhibition tasks which tests the ability to suppress responses that are inappropriate to context
THE THREE MOUNTAIN PROBLEM

- Child chooses between 10 photographs in which best reflects the puppet’s perspective
- Measures egocentrism and perspective taking
REFERENTIAL COMMUNICATION TASK

• Modified from the Language Communication Skills Task (Wang, 1973)

• Children will provide instructions to a puppet on where objects are located in a picture
OUTCOMES
DATA ANALYSIS

- Mixed-Effects Regression Model to test the interaction between a child’s degree of bilingualism and executive function task to the child’s scores from the cognitive perspective taking task and referential communication task
EXPECTED OUTCOMES

• Interaction between executive functioning and both the cognitive perspective taking task and referential communication task

• Socially sensitive children will be older, higher degree of bilingualism, and high scores on all measures
ALTERNATIVE OUTCOMES

• No effect between executive function and both the cognitive perspective taking task and the referential communication task

• No effect of the child’s degree of bilingualism and social sensitivity
THANK YOU!
ANY QUESTIONS?