“BECAUSE IT'S A LITTLE MORE MY LANGUAGE”: METALINGUISTIC COGNITION IN YOUNG MONOLINGUAL AND BILINGUAL CHILDREN

by

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ABSTRACT

The present study examined metalinguistic cognition, or the psychological concept of thinking about one's own use of language, in young monolingual and bilingual children. The study aimed to evaluate if children are aware of their own language and accent bias, and whether bilingual vs. monolingual status and age affect this awareness. In the study, children were tasked with sharing snacks between two puppets, who differed in language or accent, then asked which puppet they would prefer to be friends with and why. A coding scheme was developed to categorize the children's responses to the why question, with a particular focus on responses that mentioned language or accent. This study hypothesized that older, bilingual children would be more likely than younger, monolingual children to give language or accent as a reason for befriending one puppet over another. In a sample of 112 children aged 4-7 years, it was found that older children were significantly more likely to use metalinguistic justifications for their choices. This age effect was driven by monolingual children, as Spanish-English bilingual children did not show increased metalinguistic justifications with age. This thesis expands upon the current body of knowledge on bilingual children's thinking and learning, and provides direction for future studies in language and accent bias in adults or in speakers of less commonly-spoken languages.

INTRODUCTION

Bilingualism in preschool and school-age children is a popular topic of study across several scientific fields, including child psychology, linguistics, and education. Language acquisition and language use in childhood are related to academic performance, social identification, personality traits, and more. Metalinguistic awareness has been defined as "the ability to reflect upon and manipulate the structural features of spoken language, treating language itself as an object of thought, as opposed to simply using the language system to comprehend and produce sentences" (Tunmer & Herriman, 1984, p. 12). Put simply, metalinguistic awareness is the ability to examine and be aware of one's own use of language. Someone who displays metalinguistic awareness may be able to label and differentiate between languages or connect ideas about a language to the identity of someone who speaks it. This study aimed to evaluate if young children are aware of their own use of language and their language and accent bias, which would indicate a level of metalinguistic awareness, and whether bilingual versus monolingual status and age affect this awareness.

As early as a few days old, infants have a preference for others who speak their native language with their native accent, but children who can speak two or more languages present a new angle for examination (Kinzler, 2021). Language is often closely tied to race or ethnicity, and learned beliefs about the supposed value of one accent or dialect over another within a language can lead to the development of prejudice, or at the very least strong preference, among children (Imuta & Spence, 2020). In fact, younger children find language to be a stronger predicter of group identity than even race, despite the fact that one's knowledge of a language can change throughout their lifetime, and their race cannot

(Dautel & Kinzler, 2018). By the time children are about five years old, they are able to link language and identity. For example, one study involving both white American, Korean-American, and Korean children that found that all three groups were more likely to state that a person who speaks Korean would be Korean, while an English speaker would be American, regardless of their race (Kinzler, 2021). Another study found that children assume that people who speak an unfamiliar language wear different clothing or live in different houses than them, even if they have no other information about the person's culture (Kinzler, 2021). Intriguingly, research suggests that bilingual children, even at a young age, may be less susceptible to developing racial prejudices than their monolingual peers, regardless of their native language (Singh, Quinn, Qian, & Lee, 2020). Because of this, understanding how children, particularly bilingual children, evaluate and understand both their own and others' use of language may provide insight into how they conceptualize other markers of identity, such as race, as well.

Beyond the social aspects of second-language acquisition, bilingualism is also related to higher performance in various aspects of linguistic cognition. For example, morphological (relating to words and their formation) and phonological (relating to individual sounds and their formation) awareness is critical for developing a broader vocabulary, an understanding of language, and one's reading ability. Although bilingual children may be able to verbally communicate at a similar level of competency in both languages, their metalinguistic awareness may not be the same for each language. Young children may not even be able to comprehend or articulate that there is a difference in communication between one language and another (Dautel & Kinzler, 2018). There is evidence that monolingual children believe that the ability to speak another language is

inherited at birth and intransigent across one's lifetime, whereas bilingual children may be unaware of or have unconventional ideas for the origins of language acquisition. In fact, some bilingual children, despite their own use of two languages, may not be aware of the fact that others outside of their immediate social circle are able to do so as well (Dautel & Kinzler, 2018), as they may mainly speak one language in a particular setting, such as speaking English at school, and a different language in other environments, such as at home or at cultural gatherings.

Therefore, although bilingual children may show limitations in their metalinguistic awareness, compared to their monolingual peers, bilingual children show a better understanding of the difference between the two languages that they speak (Bialystok, 1997), and thus may be more adept at identifying their preference in terms of language, dialect, and accent. Previous studies found that bilingual children outperformed monolingual children on tasks measuring metalinguistic awareness (Dautel & Kinzler, 2018). Despite this, not all research is in agreement with this idea, as another study found lower levels of phonological awareness in bilingual children (Lonigan, Farver, Nakamoto, & Eppe, 2013). Because the latter study was conducted with preschoolers, this could indicate that age is also a contributing factor to a child's ability to distinguish between languages. Previous research indicates "a major shift in metalanguage ability occurring between 7 and 8 years of age. The 8- to 12-year-olds responded correctly to more items and at significantly faster rates than the 4- to 7-year-olds," (Edwards & Kirkpatrick, 1999, pg. 313). In another early study, younger children, about eight years old, had more difficulty justifying their responses to tasks measuring metalinguistic awareness than their older peers, about eleven years old (Cummins, 1978). Thus, age, along with bilingual

versus monolingual language status, could be a strong determining factor in a child's level of metalinguistic awareness.

As seen in Cummins' study, understanding these cognitive processes in children, such as metalinguistic awareness, may involve soliciting some type of causal explanation, or answers to "why" questions, in order to evaluate the child's level of comprehension. Current research indicates that children's causal explanations may develop along one of two theories: children create explanations based on extrapolating prior knowledge, or based on making new discoveries. Children are, nonetheless, "poor at assessing their own causal knowledge and often think they understand things when they do not" (Legare, Clegg, Robson, & Flannery Quinn, 2015, pg. 65). For example, although, as previously discussed, children develop language and accent biases from a very early age, they may not be able to articulate why they prefer one speaker over another. Indeed, past research indicates that monolingual children struggle more with providing causal explanations about language-based cognitive tasks than their bilingual peers (Cummins, 1978). Because a child who is unaware of the differences between languages would likely provide very different causal explanations compared to a child who has a stronger metalinguistic understanding, the quality of a child's causal explanation to a question relating to their own use of language could reflect their level of metalinguistic awareness.

This study aims to evaluate children's metalinguistic awareness based on causal explanations. Specifically, monolingual and bilingual children aged 4-7 years old were asked to verbalize their understanding of their own language and accent biases. These explanations were solicited through a resource allocation task where participants listened to two puppets with several language and accent variations and then "shared" snacks with

them. The participants were then asked which puppet they would prefer to be friends with, and why. The causal explanations to that crucial "why" question provide insight into whether children are aware of their own internalized preferences for certain languages and accents, and whether monolingual versus bilingual status and age play a role in this level of awareness.

METHODS

Participants

Participants were 112 children (n = 48 male, n = 64 female) aged 4-7 (M = 5.7 years), although, due to experimenter error, two children were aged 3 at the time the experiment was conducted. Sixty-seven of the participants were aged 4-5, and 45 were aged 6-7. The children came from a variety of linguistic backgrounds, with 68 English monolingual, 34 Spanish-English bilingual, and 10 other multilingual (ex: English-French bilingual) participants.

Procedure

Participants first listened to two animal puppets express hunger in one of four language pairings: 1) native-accented English vs. Spanish, 2) native-accented English vs. Spanish-accented English, 3) English-Spanish bilingual vs. native-accented English, and 4) English-Spanish bilingual vs. Spanish. For each pairing, the puppets were of the same species, but were wearing different-colored scarves (e.g., one elephant in a yellow scarf and one in a blue scarf). Scarf color and stimulus order were counterbalanced among participants. Next, the children were asked to share five snacks between the puppets, and then asked follow-up questions about which puppet the children would rather be friends with, which puppet had more in common with them, and why they would like to be friends

with the one puppet more than the other.

In order to explicitly indicate that the puppets were either monolingual or bilingual rather than merely choosing to speak only one language at the time, a sub-group of children (N = 44) watched two additional interactions between puppets belonging to the bilingual vs. native-accented English and bilingual vs. Spanish categories where one puppet clearly stated that it could not understand the other puppet when it code-switched.

A coding scheme (Table 1) was developed to categorize children's responses to the question of which puppet they would rather befriend, and why they thought this. These categories were then analyzed with regards to the child's age and status as either English monolingual, English-Spanish bilingual, or other multilingual.

Table 1

Classification Categories for Children's Justifications

Code name	Description	Example	Percent of Total Responses
1. Scarf color	Participant refers to puppet's scarf and/or its color.	"He has a green scarf. I like green."	28.24
2. Puppet species	Participant refers to the animal species of the puppet	"Because I've never seen bears before."	1.89
3. Language or accent	Participant refers to the language the puppet is speaking or their accent.	"Speaks some English and some Spanish just like me."	12.83
4. Unrelated topic	Participant provides answer that is random and does not fit into any other category.	"Maybe he can meet me at IHOP or Walmart."	18.66
5. Snack food	Participant refers to the type of food that is being shared with the puppets.	"He likes apples."	10.25
6. Sharing and	Participant refers to	"I can share millions	1.86

helping	wanting to share with or help the puppet.	of food with it."	
7. No answer given	Participant did not respond or said, "I don't know."	"I don't know, really."	8.63
8. Friendship	Participant expresses a wish to be friends with the puppet.	"So I can make some friends."	4.99
9. Positive feeling	Participant expresses positive feelings about the puppet, such as liking them or finding them cute.	"Because I love him."	12.65

RESULTS

There was wide variability in the responses provided (Table 1). The most common category was scarf color, followed by unrelated topics. A little over ten percent of responses referred to language. Looking specifically at these responses, 6-7 year olds were significantly more likely to refer to language or accent compared to 4-5 year olds ($M_{4\text{-}5}$ = 7.26(18.37) vs. $M_{6\text{-}7}$ = 21.11(33.22), $t(62.19) = -2.55$, $p = .013$). Surprisingly, monolingual and bilingual children were equally likely to refer to language or accent in their responses ($M_{\text{monolingual}}$ = 11.40(25.14) vs. $M_{\text{bilingual}}$ = 15.04(27.83), $t(110) = .718$, $p = .475$).

Looking within language groups, 4-5 year olds were compared to 6-7 year olds (Table 2). In the English monolingual group, there was a significant difference between 4-5 and 6-7 year olds in referencing language or accent. There was no difference in either bilingual group, but results are difficult to interpret in the "other monolingual" group due to the small sample size.

Table 2

Age and Language Status Effects on Children's Justifications

Language group	4-5 year olds (percent referencing language)	6-7 year old (percent referencing language)	t	p
English monolingual	5.28	20.68	-2.24	.032
Spanish-English bilingual	11.83	13.69	-.211	.834
Other multilingual	5.56	50.00	-1.89	.145

Finally, the differences in non-metalinguistic response categories (e.g., scarf color, puppet species) were calculated for 4-5 year olds versus 6-7 year olds. The only significant difference found was that younger children were significantly more likely than older children to state that they did not know why they made their choice between the two puppets ($M_{4\text{-}5}$ = 12.31(28.36) vs. $M_{6\text{-}7}$ = 3.15(8.39), t(82.21) = 2.49, p = .015).

Discussion

This study aimed to examine whether age and monolingual or bilingual status contribute to a child's metalinguistic awareness. Past research indicates that older children have a stronger grasp of metalinguistics both verbally and in print, and that bilingual children have a better morphological and phonological understanding of language than their monolingual peers. Despite this, the study found that only age was a statistically significant indicator of whether a child would give language or accent as a reason for their preference, such that children aged 6-7 would be more likely to give this explanation than those aged 4-5. This is consistent with early research that indicates a shift towards increased metalinguistic awareness beginning around seven years old.

The results also indicated that 4 to 5-year-old children were significantly more

likely say “I don’t know” or a variation thereof as their response to why they chose to befriend one puppet over another. However, despite the inability to give a concrete reason verbally, these children still made a choice in puppet that matched their language group (ex: English monolingual children picked the native-accented English puppet). This suggests that children at this age may not have the vocabulary or awareness to explain that language was their reason for choosing the puppet, but that they develop the ability to articulate this around 6-7 years old, resulting in a significant increase in language-relevant responses between the age groups.

Surprisingly, monolingual versus bilingual status was not a significant indicator of a child’s causal explanation centering around language or accent. Spanish-English bilingual children specifically, unlike their English monolingual and other multilingual peers, did not discuss language more, as was expected. This may be because the stimuli were delivered in English, Spanish, and Spanish-accented English, and therefore these participants already knew and recognized both languages and thus did not feel that the language difference was important enough to discuss. For a child that only speaks English, or perhaps English and Haitian creole, for example, hearing a puppet speak in a language you do not understand would be much more salient and perhaps confusing than for a child familiar with both English and Spanish.

Further research might investigate the results of this study being conducted among an adult population, who may hesitate to provide answers based on language and accent for fear of seeming exclusionary or discriminatory. The study could also be replicated among older children who have passed the apparent benchmark of seven years old and may have increased metalinguistic understanding, or among a population of children who are

not familiar with Spanish and instead speak a language that is less ubiquitous in Texas, such as Hindi or Korean.

In summary, the present study examined the role of age and monolingual versus bilingual status in children's metalinguistic awareness, particularly about their own language and accent biases. These findings further support previous research asserting that there is a shift towards increased metalinguistic understanding in children around age seven, though it provides a challenge to the notion that bilingual children demonstrate more metalinguistic awareness under all circumstances. This study has implications for how intergroup contact, particularly among children, can be evaluated based on language and accent preferences, and offers an incentive to promote diversity in communication in order to minimize misunderstanding between groups.

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