



CHILDREN'S DAY AT THE CENTRAL PA ARTS FESTIVAL

BILINGUALISM MATTERS at PENN STATE

CENTER FOR LANGUAGE SCIENCE

Newsletter
Fall 2016

FEATURED RESEARCH

A message from our Steering Committee

It's been a very exciting Fall Semester so far here at Bilingualism Matters at Penn State, full of happy reunions, new beginnings, and of course, lots and lots of language science. We know that fall is filled with many new beginnings for you as well, and that some of those beginnings, such as starting school or meeting your child's teacher, give rise to questions about language acquisition and bilingualism. We hope that the contents of this newsletter will help to answer some of those questions, and perhaps even stimulate more. One new beginning that we are particularly excited about is an upcoming collaboration with The Center for Global Studies in their weekly World Stories Alive program at Schlow Centre Region Library. Be sure to subscribe to this newsletter and like us on Facebook to get updates on upcoming events like World Stories Alive.

Some things you'll find in the Fall Newsletter...

Lately we've been spending lots of time thinking about how we can share some of the exciting findings from bilingual research with you, and which findings would be most applicable to your daily lives. Bilingualism Matters partner Kimberly Brown, Assistant Director at The Bennett Family Center, has been very helpful in this regard, and you can learn more about her work in our Featured

Partner section (p. 2). There was much research to choose from, but for this newsletter, we've settled on how (and why) to work at keeping your home language alive (p. 2), and how listening to and speaking in two different languages shapes white matter in the brain (p. 3). We've also included a piece that aims to bust some common myths about bilingualism (p. 4). We hope you'll find this second issue of our newsletter to be both interesting and useful. As always, we welcome your questions and comments, so please let us know what you think!

In case you haven't met us yet...

We are a group of community members and language scientists interested in sharing insights from research on bilingualism with the general public, and in helping people put those insights to practical use in their daily lives. Our Bilingualism Matters language scientists are affiliated with Penn State's Center for Language Science (CLS), an interdisciplinary group of linguists, psycholinguists, applied linguists, speech-language pathologists, and cognitive neuroscientists who share an interest in language acquisition and bilingualism. Our committee also includes community representatives from local schools, and we hope to continue to involve more community members as our work evolves.



The Bilingual Brain

Cognitive Psychology PhD candidate Angela Grant discusses positive effects that hearing and speaking more than one language have on the brain.

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Busting the Myths on Bilingualism

Anne L. Beatty-Martinez, a graduate student in Spanish, Italian, and Portuguese, sheds light on some common myths and about bilingualism.

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Keeping the home language alive

By Frances Blanchette

For bilingual families, there are many social and cognitive benefits to keeping the home language alive, but this can be very challenging when English is the dominant language at school, at work, and in the media. This article provides a few tips on keeping the home language alive to encourage positive social, cognitive, and academic growth.

1. Speak to your child in the home language as much as possible, even if they respond in English. Adult native speakers can use complex sentences and provide lots of rich and varied input for the child to listen to. While it may not seem like much is happening on the surface, children can learn a lot about the home language just by hearing meaningful and complex sentences spoken in context. Even if they're not responding in the home language, there's still lots of learning happening!

2. Try to create situations in which your child has to use the home language with different people. Children are sometimes reluctant to use their home language once they start becoming fluent in English, yet using the language is an important aspect of



their learning. Creating situations where the child has to use the language can help. This might mean calling or spending time with a grandparent or relative who doesn't speak English, playing with friends who speak the same home language, or scheduling weekly FaceTime or Skype sessions with friends and family that live far away. In addition to the cognitive and linguistic benefits, children will feel more connected to their family and culture, and more confident in their linguistic abilities.

3. Establish routines for practicing reading and writing with your child in the home language. Bilingual children who learn to read and write in their home language tend to maintain the language longer, and at a higher level than those who do not. Selecting bilingual books with your child at the local library or bookstore and reading to and with them daily or weekly is a great way to

encourage biliteracy. Older children can even try writing short poems, stories, and letters or emails to relatives living abroad!

These tips were adapted from "Children Learning Chinese as a Home Language in an English-dominant Society," by Dr. Sinming Law, published in 2014 in the International Journal of Bilingualism. You can find it online here: <http://www.tandfonline.com/doi/full/10.1080/1367005>

ONLINE RESOURCE: FAMILY LANGUAGE ALIVE

<http://familylanguagealive.org/>

This wonderful online resource provides practical, research-based ideas for keeping the home language alive. The activities and resources are separated into four categories based on the child's stage of development. Though the activities specifically reference Chinese, most of them can be adapted to any home language. Check it out, and let us know what works for you!



Kimberly Brown, Assistant Director at the Bennett Family Center and community representative for Bilingualism Matters at Penn State

Bilingualism Matters Featured Partner: Kimberly Brown

This newsletter's featured member is Kimberly Brown, Assistant Director at The Bennett Family Center on Penn State's University Park Campus. Her dedication and involvement in Bilingualism Matters brings to our work the very important perspective of a teacher and administrator working daily with bilingual children and families. Here's what Kim had to say about her work at Bennett, and why bilingualism matters to her:

I have worked at the Bennett Family Center here on campus for the past 18 years, 15 of which were as a preschool teacher and the last three as the Assistant Director. Our center is rich with cultural diversity, which creates a wonderful opportunity for our children, families and educators to learn and grow. On any given day, you will hear a family speaking Mandarin

as they walk down the hallway, two children counting together in Spanish, or children singing hello in many different languages at the start of the day. It is amazing to hear all the different languages spoken throughout the center.

We have found that our bilingual families have as many questions as our staff do with regards to resources and dual-language learning both in the classroom and the home. We consider our center an extension of the family and our partnership with Bilingualism Matters is an important part of our success. The parent brown bag lunches regarding dual language learning, staff training, activities at center-wide parent events, and resources are just some of the ways that Bilingualism Matters has had a positive impact on our children, families, and educators.

The Bilingual Brain

By Angela Grant

Does using two languages affect the brain?

The short answer here is yes, and in a good way. Over the past few years, there has been an explosion in research examining the brains of bilinguals, and many studies have found benefits of bilingualism in multiple areas of the brain (Li, Legault & Litcofsky, 2014). Perhaps unsurprisingly, figuring out why that is and how it works is very complicated. In this article, we'll be discussing an approach to studying and understanding bilingual brains that distinguishes between language comprehension on the one hand, and language production on the other. If you've ever taken a foreign language class, you may have noticed that it was easier to understand your teacher than it was to ask a question, or to try having a discussion in the language you were learning. This is because the demands on the brain are different when we listen to someone else speaking compared to when we ourselves speak. Researchers are now finding that practicing listening in your second language and practicing speaking in that language affect different areas of the brain.

How do listening and speaking affect the brain differently?

A new study by Blanco-Elorrieta and Pykkänen (2016) recorded brain activity while adult bilinguals either listened to or produced speech in each of their languages. They found that the areas of the brain that were active during comprehension and production were different: Comprehension relied on structures near the center of the brain, while production used those closer to the front.

Another study by Kuhl and colleagues (2016) also examined comprehension and production. They measured white matter—the structural brain tissue that connects different areas of the brain—in bilingual adults. They asked these bilinguals to report how much they spoke or listened to their second language, and found that experience listening and speaking the second language were each associated with changes in areas of the brain that were remarkably close to those observed by Blanco-Elorrieta and Pykkänen (2016). Excitingly, they found that bilinguals who spent more time practicing each skill tended to have healthier white matter in each of those areas. Taken together, these studies

show that exercising the brain by both listening and speaking in two languages has positive and unique effects on brain structure.

What can families learn from this?

The take away message from these studies is that both listening and speaking two languages have concrete positive effects on the brain. Bilingual parents in the U.S. often feel that they should speak English to their child, or become concerned if they speak the home language and the child responds in English. But research shows that there are good reasons to continue speaking to your child in the home language, regardless of how they respond. Just listening to you provides stimulation that leads to brain growth. And if you can encourage them to speak as well, it's all the better!

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Angela Grant is a PhD candidate in cognitive psychology. Write to her with questions and comments at amc497@psu.edu.

NEWS AND EVENTS



Summer in the Woods

We were invited to participate in the Summer in the Woods event at Hort Wood's Childcare Center, which took place on July 11th. This was a great opportunity for us to connect with parents and families in the Hort Woods community. And as you can see, we had a great time!



Liberal Arts Fair

We had the opportunity to participate in the Liberal Arts Fair, which took place on Sept. 8th here at Penn State's University Park Campus. We brought along our EEG demonstration to show how bilinguals process cognates. The demonstration was a big hit, and we hope to be invited back again next year.



Central PA Arts Fest

We were back in action on Children's Day at the Central PA Arts Fest, which took place on July 13th. We had bilingual face painting and crafts and games for the kids, and had lot of great conversations with families about bilingualism. Be sure to look for us there again next year!

Busting the Myths on Bilingualism

By Anne L. Beatty-Martínez & Christian A. Navarro-Torres

In today's world, the vast majority of individuals speak more than one language. Even in the United States, which is often thought of as a monolingual country, one in five people speak a language other than English at home, and this rate is projected to continue growing in coming years.

In 2015, the American Academy of Arts & Sciences established a Commission on Language Learning to examine the current state of language education in the U.S. and offer recommendations for ways to meet the nation's education needs. To this end, Profs. Judy Kroll and Giuli Dussias of the Bilingualism Matters at Penn State released a briefing paper to inform the public and policy makers on the cognitive and educational benefits that bilingualism provides. We summarize some of those benefits here.

Becoming bilingual

Many bilinguals learn their languages directly from their parents in a multilingual home. Parents are sometimes taught that learning two languages can be confusing and even hinder development, but research has shown that learning two languages during infancy does not produce confusion or impair cognitive development. Instead, babies learn to discriminate their languages early in life and can acquire additional languages much faster than monolinguals, even if the two languages are very different (like English and Mandarin Chinese, for example). In essence, the brain and mind learn to adapt to the challenges of acquiring multiple languages.

These adaptations are not unique to infants who acquire the languages early in their lives. Other life experiences, such as becoming bilingual as an adult, also have important consequences for the mind and brain. These consequences may allow people to develop mastery of a second language, and may ultimately confer protective effects against the symptoms of dementia and Alzheimer's.

Bilingual education

A positive trend among bilingual households in the U.S. is to encourage the development of English skills while maintaining the home language (Place & Hoff, 2011). Research has shown that continuing to develop the home language not only strengthens family ties but can support the acquisition of the second school language. One way to promote the development of both languages is through dual language programs. Embracing dual language learning within the classroom has been shown to improve academic performance in K-12 schools (Bibler, 2015).

Bilingual mixing or Codeswitching

Many bilinguals engage in codeswitching or "bilingual mixing" when speaking with other bilinguals. This ability to alternate between two languages in a conversation is a feature of bilingual communication that requires a high degree of skill in both languages.

Bilinguals who codeswitch are able to do so without any apparent disruptions to their ability to produce and comprehend language. In fact, the research suggests that people who codeswitch develop unique skills that allow them to keep track of important cues, such as the pronunciation of words, during a conversation.

In sum, research has shown that bilingualism has many cognitive and social benefits. Whether acquiring a language from birth at home, in early childhood at school, or even later on as an adult, bilingualism confers fundamental changes to the mind and brain that may be beneficial. In addition to these benefits, bilingualism offers the opportunity to learn about new people, and to embrace new ways of thinking about the world.

For more information on the American Academy of Arts & Sciences' Commission on Language Learning visit:
<http://www.amacad.org/content/Research/researchproject.aspx?d=21896>

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