Whether we process language we hear without regard to anything about the speaker is a longstanding scientific debate. But it wasn’t until University of Kansas scientists set up an experiment showing that the sex of a speaker affected how quickly listeners identified words grammatically that there was evidence that even higher-level processes are affected by the speaker.

Based on the fact that Spanish words have a grammatical gender — words ending in “o” are typically masculine and in “a” are typically feminine — the researchers showed that the sex of a speaker affected how fast and accurately listeners could identify a list of Spanish words as masculine or feminine. When there was a mismatch between the sex of the speaker and the gender of the word, listeners slowed down in identifying the word grammatically and were less accurate. Both the speakers and listeners were native Spanish speakers.

Grammar and syntax have been thought for decades to be automatic and untouchable by other brain processes, said Michael Vitevitch, KU professor of psychology. Everything else — the sex of the speaker, their dialect, etc. — is stripped away as our brains process the sound signal of a word and store it as an abstract form. This is the abstrac-

KU Researcher Demonstrates New Language Brain Interactions

New Research Shows Specific Advantages in Mixing Hearing Aid Types

University of Kansas and BNCD researcher Kostas Kokkinakis recently published a paper with Natalie Pak showing a distinct advantage in users that use a cochlear implant in one ear and a hearing aid in the other. For normal-hearing listeners, there are specific advantages to binaural hearing. Timing differences in each individual ear help listeners to distinguish sounds from each other, especially when listening to multiple sounds at once. The brain also uses these time differences in an effect called binaural squelch to help enhance our attention to specific sounds, like speech, and to enhance that signal over extraneous noise. Hearing loss, of course, has a severe effect on a listener’s ability to fully utilize these advantages, and while hearing aids have helped, the advancements of cochlear implants have given many people with severe hearing loss or total deafness the ability to hear.

Kokkinakis has found that there is a difference between listeners that have cochlear implants in both ears (bilateral listeners) and listeners fitted with an implant in one ear and a hearing aid in the other (bimodal listeners). Bimodal listeners demon-
Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.

Investigator Highlight

The BNCD is excited to relate that investigator Nancy Brady was recognized by the Friends of the Lifespan Institute as one of their outstanding investigators.
Research Participation Opportunities

1. **Does your child have trouble learning new words?**
The purpose of this study is to see the effect of interactive book reading on new vocabulary learning.

   - **Age:** Kindergarten
   - **Time:** About 2 sessions a week for 2-3 months. Visits will last about 15-30 minutes.
   - **Benefits:** You will be given a written report detailing your child’s performance on all standardized clinical tests administered. Child may learn some of the 30 words taught.
   - **Contact:** KU Word Learning Lab; wrdlrng@ku.edu; (785)864-4428

2. **The Communication Complexity Scale Project: Building Early Intervention Diagnostics.**
This NICHD-funded research project is developing a new communication assessment scale for individuals who have intellectual and developmental disabilities and who speak or say very few words. Results will improve assessment practices for these children and adults.

   - **Age:** 3 years or older, including adults.
   - **Specific:** Participants sought have an intellectual or developmental disability, including autism, and have minimal verbal skills (they have fewer than 20 functional words or signs).
   - **Time:** A set of developmental assessments and scripted observation in the participant’s school, agency, or home as well as a few short questionnaires for the participant’s caregiver(s) will result in a time commitment of about 2 hours. 1 hour with the participant, 1 hour with caregiver(s) by appointment.
   - **Benefits:** Results will improve the assessment of communication level and lead to better treatment. Compensation of $50 will be provided to the participant’s parents or guardians for the participant’s time.
   - **Contact:** Communications Success and AAC Project Coordinator Julie Evnen; jevnen@ku.edu, (785)864-1573.
     For more information please visit: http://www2.ku.edu/~cspgrants/ccs.shtml

3. **How does attention impact language learning?**
The purpose of this project is to learn about how infants’ attention to social and nonsocial information relates to early language development.

   - We want to learn whether infants’ pay attention differently when they are watching people and objects and if these differences relate to how they learn language.
   - **Ages:** 6 to 12 month old infants.
   - **Time:** One 60 minute visit to the KU Edwards Campus (126th and Quivira in Overland Park KS).
   - **Benefits:** Families will receive compensation of $50 for participating in this study.
   - **Contact:** KU Infant and Early Cognition Program; babylab@ku.edu; (913)897-8590

Language Acquisition Preschool Has Openings

The Language Acquisition Preschool (LAP) is a licensed program that serves children with and without communication disabilities. LAP is a three-hour a day, 4 days a week program (there is a morning class and an afternoon class serving 18 children in each class). The program follows the University of Kansas semester schedule. The head teacher in the class is a speech language pathologist and the assistant teacher is an early childhood educator.

- **WHAT:** A half-day preschool program:
  - 8:30-11:30  Monday-Thursday
  - 1:00-4:00  Monday-Thursday
- **WHERE:**
  - 1014 Dole Child Development Center
  - 1000 Sunnyside Ave, Lawrence, KS
  - 66044
- **Curriculum focuses on Language and Literacy skills**
- **Currently enrolling for Fall 2014!**

**Contact:** Dr. Betty H. Bunce, Director
785-864-0646
bbunce@ku.edu
About this Newsletter:
The BNCD newsletter is designed to keep you informed about the ongoing research projects that are being conducted by BNCD researchers at the University of Kansas. Participants who have been part of recent research projects conducted by BNCD researchers, parents who have expressed interest in participating in future research, and individuals from organizations such as schools and daycare centers that have an interest in BNCD studies will receive this newsletter from time to time to keep them up-to-date about the research activities at the BNCD. If you do not wish to receive future newsletters, please call or e-mail the BNCD to have your name removed from our list. Research at the BNCD is supported in part by grant number 5 P30 DC05803 from the National Institute on Deafness and other Communication Disorders (NIDCD) at the University of Kansas.

Just for Fun

Spring is a great time to be looking skyward! Can you find the following space words?

ASTEROID
COMET
MARS
MOON
PLANET
STAR
UNIVERSE
ASTRONAUT
GALAXY
MERCUERY
NEPTUNE
SATURN
SUN
VENUS
ASTRONOMY
GRAVITY
METEOR
ORBIT
SHUTTLE
TELESCOPE

A I U B K J Z Y R T M G K C X X V O
X S I P Y J E T G T E A Y Q M E R
W T T T T N E I H U S L R I L V W N B
H Z W R U R F V T A R I E C A Q I U
B F F T O Y Q A E N A F E S U X S T
I W P T H N Y R M O M H W A C R Y S
G E J M R R O G O R K U S B F O Y X
N H X A L U H M C T O A S Q I Q P M
E S R E V I N U Y S S H U T T L E E
T E N A L P M N U A D I O R E T S A
M H G M W D O U Z R F M A S T A R Q
S A T U R N O S S K M U R I L G T A
R O E T E M N U F A V U A N D S X C

The University of Kansas prohibits discrimination on the basis of race, color, ethnicity, religion, sex, national origin, age, ancestry, disability, status as a veteran, sexual orientation, marital status, parental status, gender identity, gender expression and genetic information in the University’s programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Director of the Office of Institutional Opportunity and Access, IOA@ku.edu, 1246 W. Campus Road, Room 153A, Lawrence, KS, 66045, (785)864-6414, 711 TTY.