

## National Institutes of Health awards Center for Early Childhood Research grant that supports exploration of language development

**By Josh Schonwald**

*News Office*

The National Institutes of Health recently awarded six faculty members associated with the University's Center for Early Childhood Research a nearly \$7 million grant over a five-year period to support research that will explore the effects of both social and biological factors on language development.

Led by Susan Goldin-Meadow, the Irving B. Harris Professor in Psychology, Human Development and the College, the center's research team will include both social and biomedical scientists.

In one component of the project, Janellen Huttenlocher, the William S. Gray Professor in Psychology and the College, will conduct a longitudinal study on the effects of variation in linguistic environment among Chicago-area children between 1 and 4 1/2 years old.

Subjects will be chosen from households of widely varying socioeconomic status. The quality of the language used by caregivers and the development of the children's language skills will be measured at four-month intervals over four-year periods. The goal is to ascertain the relationship between variations in a caregiver's speech and variations in children's language skills.

Goldin-Meadow will study the same sample of subjects, but will examine the caregivers' use of gesture. Her study seeks to understand whether caregiver gestures impede or accelerate children's verbal language learning, and whether children compensate for impoverished linguistic environments by relying more on gesture.

Another focus of the project is the role of neurobiological factors in language development. Susan Levine, Professor in Psychology and the College, will study a comparison sample

of children with brain-injuries known to affect language ability. Levine hopes to determine whether variations in linguistic environment have similar effects for brain-injured children as they do for children in the sample study. Peter Huttenlocher, Professor in Pediatrics and Neurology, and Steven Small, Associate Professor in Neurology and Radiology, will study brain-injured children to determine how the brain reorganizes language processing following injuries sustained at different ages in childhood through adolescence, and how this process is affected by differences in the size and location of brain lesions.

Larry Hedges, the Stella M. Rowley Professor in Sociology, Psychology and Public Policy, will lead a group of quantitative theorists to provide a consistent statistical and analytical framework for these studies. Hedges and his team will develop measures to assess linguistic growth and the influence of the linguistic environment.

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