

4.00pm Thurs. 8th Feb., LT 3, Appleton Tower, George Square, Edin., EH8 9LE

# Maryellen MacDonald

University of Wisconsin-Madison



Maryellen MacDonald's first psycholinguistic memory dates from her move from New York to Texas at age 5, when she first encountered the word 'restroom' and discovered that it did not mean the room where children take their naps. She received her BA degree from the University of Texas at Austin and her Ph.D. in Psychology (minor in Linguistics) from UCLA. She has held postdoctoral and faculty positions at Northeastern University, MIT, and the University of Southern California, and she is now Donald P. Hayes Professor in Psychology and the Program in Language Sciences at the University of Wisconsin-Madison. She works on topics in language production, language comprehension, and verbal working memory.

# Language Production is not Just for Producing Language

The cognitive systems that allow us to convert an idea into language appear to have other critical functions in human cognition. For example, Pickering and colleagues have suggested that the language production system is central in generating predictions during language comprehension. I will offer three other hypotheses and data concerning the broader consequences of language production. First, language planning processes inherently create biases for certain word-syntax combinations over others, yielding robust lexico-syntactic statistical regularities in the perceiver's linguistic environment. On this view, many human acquisition and comprehension results that were once attributed to inherent acquisition or parsing biases can instead be seen as emergent from the ways in which production creates certain distributional regularities that are learned by perceivers. Second, language production provides a stronger learning signal than comprehension, to the point that production practice can boost comprehension of a new artificial language better than comprehension practice itself. These first two points depend in part on the third hypothesis, that temporary maintenance of verbal information is not via a dedicated temporary store ('verbal working memory') but is actually part of language production processes. If these ideas are correct, then language production is central to temporary maintenance and long term learning of verbal information, both of which could support a role for production in prediction during comprehension. These memory-based functions would also be at the heart of why language production yields certain patterns of statistical regularities over others.

**Followed by beer, wine, bread & cheese!**

## Mark Seidenberg

University of Wisconsin-Madison



**MARK SEIDENBERG** is Vilas Research Professor and Donald O. Hebb Professor of Psychology at the University of Wisconsin–Madison and a Senior Scientist at Haskins Laboratories. He is a specialist in psycholinguistics, focusing specifically on the cognitive and neurological bases of language and reading. Seidenberg received his Ph.D. from Columbia University under the mentorship of Thomas Bever and completed a postdoctoral fellowship at the Center for the Study of Reading at the University of Illinois. He has held academic positions at McGill University, the University of Southern California, and, currently, at the University of Wisconsin. Seidenberg has published over a hundred scientific articles and has been recently honored as one of the 250 most-cited researchers in the areas of psychology and psychiatry.

## How language background contributes to reading difficulties and "achievement gaps"

Children's progress in learning to read is affected by many factors. Characteristics of the child, home, community, and school all matter. One major factor is their experience with spoken language. Much attention is now focused on variability in the amount and complexity of language used in the home, and whether gaps in areas such as vocabulary can be ameliorated. However, we also need to look closely at linguistic differences between the language used in the home and in school. The impact of bilingualism on language acquisition and learning to read has been extensively studied, but what about the impact of exposure to two dialects? Children who speak a non-mainstream dialect of English (such as African American English) also have to accommodate the mainstream dialect used in school—in the books they are learning to read, for example. This additional linguistic demand does not arise for speakers of the mainstream ("standard") dialect. Children are nonetheless given the same amount of time to reach achievement goals. Achievement gaps are hard to eliminate because they are due—in part—to these sociolinguistic circumstances. Like inequalities in educational opportunity, inequalities in educational demands place children at high risk for failure, and need to be addressed. I will discuss a couple of potential strategies for doing so. *For open discussion: How conditions in the US compare to those in Scotland and other parts of the UK.*

**Followed by beer, wine & cheese!**