

How do writing systems shape reading acquisition?

Keynote lecture

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Outline

By the time that most children leave school, the act of reading seems effortless. Text is all around us and we cannot help but understand what it means. Yet, our experience of reading belies the fact that unlike walking or talking, humans are not born to be able to read. Instead, reading is a skill that needs to be taught explicitly, and whose mastery requires years of dedication and practice.

The most basic challenge of reading is learning to associate arbitrary visual symbols with meaningful spoken language. Thus, the study of reading has been dominated by the idea that writing systems that faithfully represent the sounds of language are preferred; and this view is central to spelling reform. Yet, some deviations between written and spoken language, such as the introduction of spacing between printed words, are regarded unambiguously as a good thing.

In this talk, I develop the proposal that written language has diverged from spoken language in important ways that maximise the transmission of meaningful information, and that this divergence has been central to the development of rapid, skilled reading. I start by describing studies of learning to read in artificial writing systems, and show how the brain compensates for arbitrariness in the relationship between spelling and sound. I then move on to discuss the English writing system, and show how weaknesses in the relationship between spelling and sound can give rise to strong regularities between spelling and meaning that are critical for the rapid computation of meaning.

I conclude by arguing that the nature of the reading system is a reflection of the writing system and that a deep understanding of reading can be obtained only through a deep understanding of written language.