

ACOUSTICS2008/3421 Why words do not have a psychological alphabet

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Linguists and psychologists share a powerful intuition that the psychological form of language (in memory) employs letter-like units for spelling words and any other linguistic material. However evidence accumulating over the decades shows that memory for linguistic material actually consists of continuous-time representations containing much more information than we thought, plus there are episodic representations with much redundancy. So Liberman's /di/ and /du/ share nothing in their representation. There need not be an abstract /d/ in the memory representations of language. Our intuition that a letter-like representation is necessary for speech perception and production turns out to be shared only with literate people. Because we cultivate our reading and writing skills, we bias our brains (and consciousness) to model speech using something like letters (e.g, phones) - either from an orthographic or a technical alphabet. So our conscious experience of language is shaped by our cultural tradition of training children to hear speech as letters and letters as speech - all to exploit the technology of literacy. When we can overcome this education-based bias toward phones and phonemes, we will discover the phonemic emperor has no supporting evidence. Linguistic material in memory is richly detailed - relative to what an alphabet represents.