

Big issues in speech perception: Abstraction and nativeness

Anne Cutler

Research in the phonetic sciences involves some of the most fundamental questions at issue in the study of language structure and processing. One concerns the ability of language users (and learners) to derive and exploit generalisations abstracted from their linguistic experience. In speech comprehension, a long line of research on adaptation (across talkers, across varieties of a language, to phonetic variability of different kinds, to disadvantageous listening conditions) has revealed significant roles for veridical (episodic) memory and for decision-making based on analogical comparison. This evidence may seem to reduce the necessity for abstraction; yet it is in these very areas that there is also abundant empirical evidence (old and brand new) for listener recourse to abstract knowledge.

The abstraction issue is not unrelated to the question of how we interpret the many advantages enjoyed by the native language in typical listening situations. All users of a second language, for example, are familiar with the greater difficulty arising from listening under adverse conditions (reverberant spaces, background noise, unfamiliar varieties) in an L2 rather than an L1 context. Likewise the adaptability of listening (under all the circumstances listed above) can often seem to be compromised in an L2 compared to the experience with the native language. New relevant evidence on these issues has emerged from cases where the question of nativeness is actually at issue, such as lost, abandoned or neglected first languages. Here too it seems that a full account of the data is facilitated by including both abstract knowledge and accrued experience as explanatory constructs.