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| **The first 7 minutes of exposure to a new language** |
| Leah Roberts |
| **Background** |
| How do you break into a new and unknown language from scratch when you have no help? More specifically, how do you extract word-related information from the incoming string when this is a stream of sustained speech? This complex task, part of what Klein (1986: 59) calls the learner’s ‘problem of analysis’, consists of at least three components. First, a learner must segment the continuous speech stream to identify relevant sound strings as 'words'. Since speech does not come with well defined-breaks between words in the acoustic signal corresponding to spaces between written words, the ‘segmentation problem’ is a challenging task for learners. Second, the learner must identify relevant meaning from the context and map it onto the identified sound strings. The ‘mapping problem’ is equally challenging, as illustrated by Quine's well-known problem of referential indeterminacy (Quine 1960). On hearing 'gavagai' in a context in which a rabbit is present, the learner must determine whether the form refers to the bunny's nose, its fur, the whole animal, its mode of movement or something completely different (see also N. C. Ellis 2005). Finally, the learner must generalise beyond the exemplars found in the input to novel items and form linguistic categories. Although these processes constitute the crucial first steps in all language learning, surprisingly little is known about how adult untutored learners of a second language (L2) go about this complex task ‘in the wild’. Moreover, most acquisition research targets the third task, that is, the generalising and category formation. In this project, we focus on the first two stages of this critical language acquisition task. |
| **Aims & Design** |
| Dutch participants who had no previous exposure to Mandarin were exposed to naturalistic but controlled audiovisual input in Mandarin Chinese in the form of a weather report, in which item frequency and gestural highlighting were manipulated. Different groups of Dutch participants undertook various tasks, including sound-to-meaning mapping, lexical decision and word recognition to investigate how much lexical and word-form knowledge learners can extract after minimal exposure. |
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| **Collaborators** |
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| **Impacts** |
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| **Publications** |
| Roberts, L., Gullberg, M. & Dimroth, C. (in prep). What can adults learn about word forms in an unknown language after minimal exposure?  Gullberg, M., Roberts, L. & Dimroth, C. (2012). What lexical knowledge can adult learners acquire after minimal exposure to a new language? *International Review of Applied Linguistics, 50*(4)*.*  Gullberg, M., Roberts, L., Dimroth, C., Veroude, K. & Indefrey, P. (2010). The first seven minutes of exposure to an unknown language *Language Learning,* 60(supp1), 5-24*.* |