The Effect of Spontaneous Production of Translation Equivalents on Lexical Retrieval in ASL-English Bilinguals

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Introduction

Bilinguals and Lexical Retrieval
Greater difficulty than monolinguals in lexical retrieval (Gollan & Acenas, 2004; Gollan & Silverberg, 2001)
• Semantic competition (Gollan & Acenas, 2004; Miozzo & Caramazza, 1997)
• Reduced frequency of use (Gollan, Montoya, Cera, & Sandoval, 2008)

Bimodal Bilinguals
• Fluent in a signed and spoken language
• Code blend: produce signs and words at the same time (Emmorey, Borinstein, Thompson, & Gollan, 2008)

Role of iconicity in lexical retrieval
Iconicity: non-arbitrary relationship between word form and meaning
Sign languages
• Sign languages lend themselves to iconic signs share a greater form-meaning relationship (Klima & Bellugi, 1976)
• Iconicity facilitates within language lexical retrieval (Ormel, Knoos, Hermans, Verhoeven, 2009; Thompson, Vinson, Vigliocco, 2009)
• Iconicity has no effect on language processing (Poizner, Bellugi, & Tweeney, 1981; Bosworth & Emmorey, 2010)

English
• Iconic gestures facilitate English lexical retrieval (Rauscher, Krauss, & Chen, 1996)
• Iconic gestures do not affect TOT resolution (Beattie & Coughlan, 1999; Frick-Horbury & Guttentag, 1998)

Research Question

Does the spontaneous production of ASL translation equivalents facilitate or block lexical retrieval in an English picture-naming task?

Participants
• 33 hearing fluent ASL-English bilinguals (23 F, 10 M)
• M_age = 28.60, range 18-50 years.

Task and Coding
English picture naming task: 52 items (Gollan & Brown, 2006)
40 items ASL translation equivalents (Average Iconic Rating 3.53/5).

When translation equivalents are produced, TOTs take longer to resolve

Fewer TOTs are resolved when translation equivalents are produced

Summary & Conclusions

• English lexical retrieval is not facilitated by spontaneous production of translation equivalents
• Translation equivalents may block lexical retrieval, suggesting competition between languages at the lemma level
• Alternatively, once speakers experience difficulty with lexical retrieval, they may produce translation equivalents as a strategic attempt to resolve the TOT
• English lexical retrieval is not facilitated by the iconicity of signs

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