Predictors of Native-like Lexical Categorization in Chinese Learners of English

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21 October 2012

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Lexical Categorization

Languages carve up the world of objects and events into named categories that suggest some similarity between their diverse constituents

- Color (Landar, Ervin, Horowitz, 1960; Caskey-Sirmons & Hickerson, 1977; Kay & Regier, 2007)
- Furniture (Graham & Belnap, 1986, Malt, Sloman, & Gennari, 2003; Li, 2012)
- Containers (Malt et al, 1999; Ameel et al, 2005)
- Causation (Wolff & Ventura, 2009)

These categories can disagree!

Non-native-like categories are an example of *semantic accent*, or the transfer of norms from one language to another.

Semantic Accent

“Noooooo!”

Professional translation

不要

Machine translation

杯子

cup

Convergence & Transfer

Lexico-semantic conflicts appear to be solved through compromise between languages

(Ameel et al, 2005)

- Using L1- or L2-specific patterns: transfer
- Similarity between L1 & L2 production: convergence

Goals of the Present Study

New conditions: How does bilingual interaction manifest

…in a more distant language pair?

…outside bilingual community?

…in L2 learners?

Parameterize native-like L2 categorization:

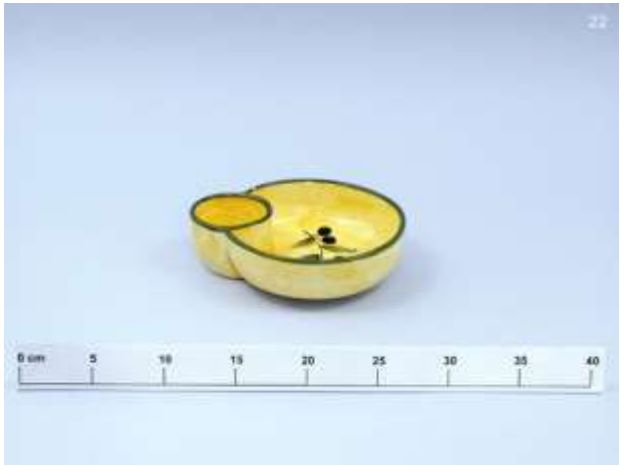
- Age of L2 onset (Li et al., 2007; Pavlenko & Malt, 2011)
- Immersion (Linck et al., 2009; Schmitt, 2010)
- L2 proficiency (Dong et al., 2005; Zinszer & Li, 2010)
- Code-Switching frequency (Wolff & Ventura, 2009)

Methods

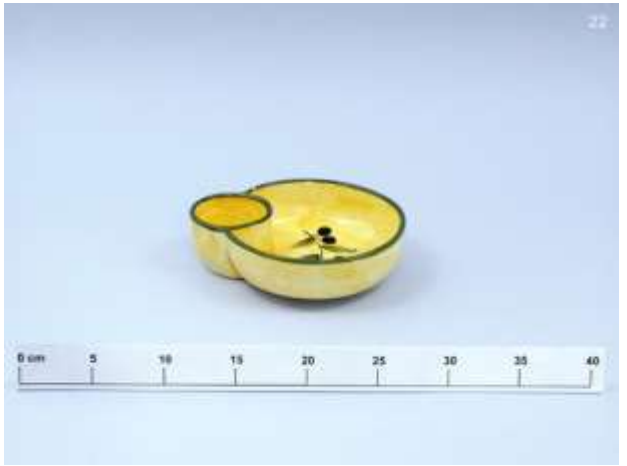
Participants: Drawn from larger sample of Chinese-English bilingual undergraduate & graduate students, based on sufficient English proficiency:

- 15 students from Penn State University (USA)
- 20 students from Beijing Normal University (China)

Sample	Age	AOEE	LOR	English Prof	O-Span
PSU	18 – 23 y M = 20 y	5 – 15 y M = 9 y	0 – 9 y M = 3.3 y	2.8 – 7.0 M = 5.1 / 7	43 – 57 M = 49
BNU	18 – 26 y M = 22 y	5 – 15 y M = 11y	~	1.3 – 5.5 M = 4.0 / 7	34 – 57 M = 49



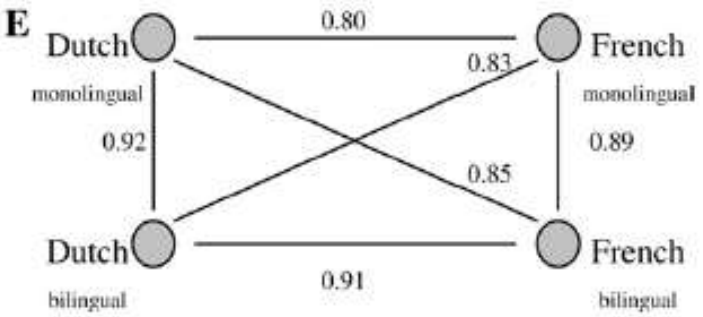
What is this?



这是什么？

Group Correlations

Hypothesis

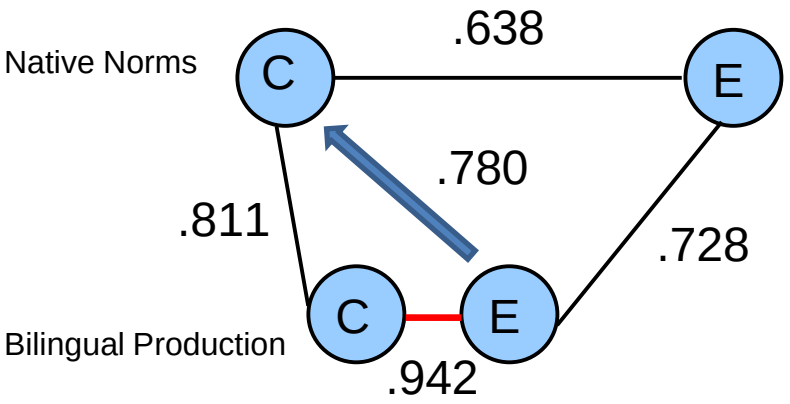


(Ameel et al, 2005)

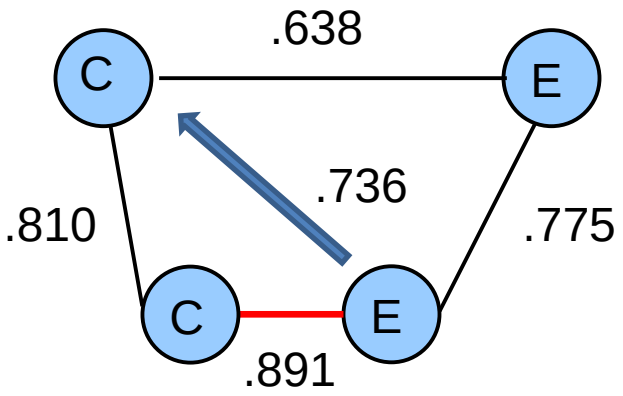
Results

Convergence (correlation within bilinguals): greater than baseline in both groups

Cross-language transfer: groups are relying on L1 to differing extent



Beijing Normal



Penn State

Predictors of Native-like English

Binomial logistic regression for P(native-English dominant name):

Object-wise variables:

- Naming Agreement by monolinguals in Chinese & English
- Number of proposed names by monolinguals in Chinese & English

Participant-wise variables:

- Age of earliest L2 (English) exposure
- Overall English proficiency
- Frequency of code-switching
- All interactions, non-significant interactions later removed

Predictors of Native-like English

Beijing Normal	Penn State
Object Variable log(Odds Ratio), p<0.05	Object Variable log(Odds Ratio), p<0.05
Chi. Norm Agreement (-1.56)	
Eng. Norm Agreement (2.90)	**Eng. Norm Agreement (4.32)**
# Chinese Norm Names (-0.19)	
# English Norm Names (-0.11)	

- For un-immersed learners, L1 naming patterns are a significant detriment to L2 native-likeness.
- Immersed learners gain a dramatic advantage in native-likeness from native-speaker agreement.

Predictors of Native-like English

Beijing Normal

Participant Variable log(Odds Ratio), p<0.05

Age of Exposure (-0.12)

English Proficiency (0.09), *p*=0.12

Code-Switch Frequency (-0.84)

AoEE x CS-Freq (0.07)

Penn State

Participant Variable log(Odds Ratio), p<0.05

English Proficiency (0.56)

Code-Switch Frequency (0.45), *p*=0.08

Profic x CS-Freq (-0.08), *p*=0.14

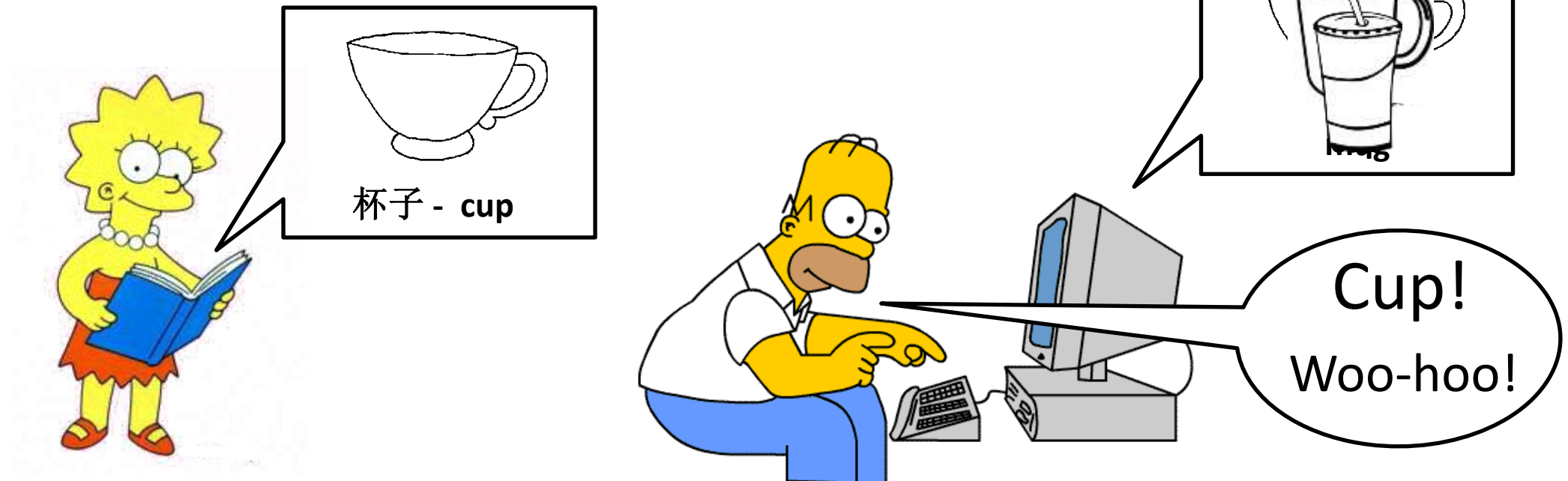
- Only in un-immersed learners does L2 native-likeness decline with increased age of earliest exposure and code-switching
- Self-rated L2 proficiency is only predictive of lexical category proficiency in immersed learners.
- Code-switching appears to have differential effects vs. immersion

Discussion

- Agreement among native speakers is highly predictive of L2 learners' success in acquiring native-like categorization
- Individual differences in language history can differentially affect immersed and un-immersed learners.

Application

- L2 instruction should be sensitive to category differences.
- This is *not* an impossible task, even for beginners:



Thank You & 谢谢

Brain, Language, & Computation Lab
Andrew Barney
Angela Chouinard
Patrick Clark
Thomas Holt
Sebastian Rolotti
Jing Yang

Transcription & Language Consulting
Peiyao Chen
Anqi Li
Jessica Wen
Terry Zhang
Dan Zhong

Beijing Collaborators
Hua Shu
Han Wu
Zhichao Xia
Lijuan Zou

This research is supported by the National Science Foundation:
OISE-0968369, *PIRE: Bilingualism, Mind, and Brain*
BCS-1057855, *Collaborative Research: Cross-Language Lexical Interaction*