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Handling Language: The Gestures of Future Foreign Language Teachers

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Gestures and SLA

- Learner’s gestures (Gullberg, 2006, 2010; Gullberg & McCafferty, 2008; Stam & McCafferty, 2008; Stam, 2013)
- Teacher’s gestures (Tellier, 2006, 2008a).
- Teacher’s gestures effect on L2 comprehension (Kellerman, 1992; Tellier, 2006, 2008a; Sime 2006, 2008).
- Teacher’s gestures effect on L2 memorisation (Allen, 1995; Tellier, 2008b)
Foreigner Talk

- “Foreigner talk” (Ferguson, 1975)
  - Modifications in speech to facilitate comprehension
    - more basic terms, shorter sentences, present tense
    - articulate more, speak more slowly, talk more loudly, use gestures
  - Instinctive
    - More or less effective

- Positive effect of foreigner talk on learners (Wesche & Ready, 1985; Long, 1980)
Gesture in Foreigner Talk

- Study by T. Adams (1998)
- Narration task (Canary Row)
  - English speakers => native speakers vs. non native speakers (Koreans)
- Hypotheses with non-natives:
  - More iconics and deictics
  - Fewer metaphorics and emblems
- No significant differences except for deictics
Gestures in Teacher Talk

• Questions
  ◦ What about future language teachers?
  ◦ Do they naturally use more “helpful” gestures?

• Hypotheses for the non-native condition:
  ◦ More gestures
  ◦ More iconics and deictics
  ◦ Fewer metaphorics and emblems
  ◦ Use of a larger gesture space
Participants and Task

- **Participants**: 3 types from Aix-Marseille University (France)
  - 10 future French teachers (Master 1 FLE/S)*
  - 10 non-native-speaking students (level B1/B2)
  - 10 native French-speaking Geography students

- **Experimental material**
  - 12 words (concrete & abstract)
  - Make the other participants (native and non native) guess the words

*Data collected twice before and after teacher training.*
Procedures

- Words randomly pulled out of the box
- Instructions
  - no words from the same family
  - no translation from another language
  - no time restriction
- Order
  - Counter-balanced:
    - native/non-native (5); non-native/native (5)
Coding

- 240 explanations
  (10 subjects x 12 words X 2 conditions)
- Coded on Elan
  - Verbal
  - Strategies
  - Dimensions of gestures
  - Gesture meaning
  - Gesture space
Gesture Dimensions

- Deictic – pointing gesture
- Iconic – gesture illustrating a concrete object or action
- Metaphoric – gesture illustrating an abstract concept
- Beat – small rhythmic movement of hand
- Emblem – culturally specific gesture
- Butterworth – lexical search gesture
- Interactive – gesture addressed to interlocutor
- Aborted – gesture begun and then abandoned
Grotesque Space (McNeill, 1992, p. 85)

Classification, Transcription, and Distribution

EXTREME PERIPHERY
upper
upper right
right
lower right
lower

PERIPHERY
CENTER

CENTER CENTER

upper left
left
lower left

Figure 3.1. Drawing of the typical gesture space of an adult speaker.
Gesture Space

- Gestures affected by discourse situation (Kendon 1997; Wilkin & Holler, 2011)
- Direction of gesture affected by location of speaker/interlocutor (Özyürek, 2002)
- Use of gesture space affected by identity of interlocutor (Tellier & Stam, 2010)
How to Code Gesture Space

- Location of the hand in gesture space (and fingers when relevant)
- When a gesture crosses several spaces → choose the largest one
- When both hands are in 2 different spaces → choose the largest one
- McNeill’s diagram (1992) has only 2 dimensions = PROBLEM
  - Movement is 3 dimensional.
New category:
Extended arm in front
Results

- For 4 words (grimper, trottoir, râpé approximativement) = 80 explanations
  - **Mean Number of Words**
    - Native condition – 127.6
    - Non-native condition – 351
    - paired sample t-test, $t(1,9)=-7.645, p = .000$
  - **Mean Number of Gestures**
    - Native condition – 16.4
    - Non-native condition – 53.8
    - paired sample t-test, $t(1,9)=-4.882, p = .001$
Results

- **Mean Number of Gestures per Word**
  - Native condition – 0.131300
  - Non-native condition – 0.155600
    - paired sample t-test, $t(1,9)=-1.016, p = .336$

- **Mean Gesture Duration**
  - Native condition – 4.38 sec.
  - Non-native condition – 8.58 sec.
    - paired sample t-test, $t(1,9)=-4.844, p = .001$
Results

- **Types of Gestures**
  - Non-native condition: more iconics, deictics, emblems, and aborted gestures
    - Differences statistically significant for iconics, deictics, metaphorics, emblems

- **Use of gesture space**
  - Non-native condition: more use of periphery, extreme periphery, and extended arm
    - Differences statistically significant for all gesture spaces
Dimensions of Gesture

![Graph showing the dimensions of gesture]
Gesture Differences — *Trottoir*

native cond.  
Pour les passants  
no gesture  
For the pedestrians

Non native cond.  
[pour les pour les passants]  
iconic gesture  
[for the for the pedestrians]
Gesture Differences – *Grimper*

- Native condition: c'est un verbe / synonyme de de [escalader] *metaphoric*
  - It's a verb / synonym of rock climbing

- Non-native condition: C'est un verbe / euh synonyme de [escalader] *iconic*
  - It's a verb / hum synonym of rock climbing
Gesture Space

![Bar chart showing gesture space distribution]

- Center-center
- Center
- Periphery
- Extreme periphery
- Extended arm

Legend:
- NAT
- NN
Gesture space
(center vs periphery + extended arm)

Significant effect of the condition on the use of gesture space (p <0.001)
Gesture Space Differences

Native cond. [quand tu montes à un arbre] iconic - center space [When you go up a tree]

non native cond. [quand on monte à un arbre] iconic - extreme periphery [when one goes up a tree]
Individual variation in the use of gesture space

More gestures in periphery
More gestures in center

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Effects on Use of Gesture Space

- Interlocutor
- Individual propensity
- Culture (Müller, 2001)
- Word being explained
  - Concrete vs. abstract
The future teachers of FLE when explaining words to non-native listeners tend to use gestures:

(1) that last longer,
(2) that are more illustrative,
(3) that are larger

than when they talk to native listeners.
Thank you! / Merci!

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References


References


References


