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Handling language: The gestures of future foreign language teachers

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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)
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
Gesture Space (McNeill, 1992, p. 85)

Figure 3.1. Drawing of the typical gesture space of an adult speaker.
## ELAN Coding Sample

### Global speech
- **Start to match the photo**
- **Stop**
- **Start**
- **Stop**

### vocal strategies
- **Silent**

### Main gestures
- **I**
- **You**
- **Me**
- **We**

### Secondary gestures
- **Opening**
- **Closing**
- **Front**
- **Back**
- **Left**
- **Right**

### Gesture meaning
- **Walking down the street**
- **Stop**
- **Think**

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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

[Bar chart showing percentages of different types of gestures: iconic, deictic, metaphor, beat, emblem, Butterworth, aborted, interactive. The chart compares NAT and NN (Non-Native) participants.]
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 Cond.**
  - C'est un verbe / synonyme de / de [escalader]
  - It's a verb / synonym of / of [rock climbing]

- **Non Native Cond.**
  - C'est un verbe / euh synonyme de [escalader]
  - It's a verb / hum synonym of [rock climbing]
Gesture Space

- Center-Center
- Center
- Periphery
- Extreme Periphery
- Extended Arm

- 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
Take Home Message

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


