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)
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
Gesture Space (McNeill, 1992, p. 85)
ELAN Coding Sample
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 – .131300
  - Non-native condition – .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
Gesture Differences – *Trottoir*

native cond.  | Pour les passants  
no gesture  
*For the pedestrians*

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

native cond.  
c’est un verbe / synonyme de / de [escalader]
metaphoric
it’s a verb / synonym of / of [rock climbing]

Non native cond.  
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 percentages for different categories: center-center, center, periphery, extreme periphery, and extended arm. The chart compares NAT (dark blue) and NN (light blue) data.]
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
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


