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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)
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)

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

### Global Speech
- Label: [speech]
- Text: [speech]

### Verbal Strategies
- Label: [verbal]
- Text: [verbal]

### Main Gesture Tags
- Label: [gesture]
- Text: [gesture]

### Secondary Gesture
- Label: [secondary]
- Text: [secondary]

### Gesture Image
- Label: [image]
- Text: [image]

<table>
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<th>Start</th>
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<th>Label</th>
<th>Text</th>
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<tr>
<td>0.00</td>
<td>0.10</td>
<td>image</td>
<td>[image]</td>
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</tbody>
</table>

**Notes:**
- ET: 00:00:12.460, ET: 00:00:13.460 walking down the street.
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

[Bar chart showing the percentage of different types of gestures.]

Wilga Rivers Colloquium on Foreign Language Pedagogy AAAL 2012
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 – *Grimer*

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**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 distribution]

- Center-center: NAT 25%, NN 17%
- Center: NAT 45%, NN 30%
- Periphery: NAT 20%, NN 15%
- Extreme periphery: NAT 5%, NN 10%
- Extended arm: NAT 5%, NN 5%
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


