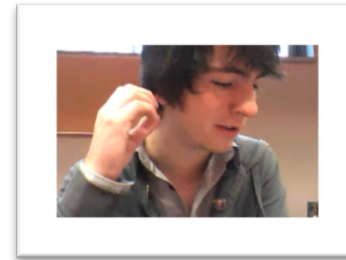




UMR 5191
Interactions, Corpus, Apprentissages, Représentations



The role of the webcam in lexical word search episodes

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Introduction

- Videoconferencing (VC) often used in distant language courses (free and reliable programmes available, e.g., Skype)
- VC gives online participants quasi-synchronous access to interlocutor's voice and other multimodal elements (e.g., gestures, facial expressions, body movements, gaze)
- Is VC a better pedagogical option than audioconferencing (AC) for an online L2 interaction?

Introduction

- Follow-up to earlier quantitative study (Guichon & Cohen, 2014) which compared VC to AC in teacher-learner interactions (describe 4 photos)
 - Objective: to assess whether one condition was more facilitative of communication on several variables
 - Few significant differences
 - NS results for number and duration of word search episodes
- ➔ BUT purely quantitative approach not nuanced enough to capture precisely how learners used verbal and visual elements at their disposal during word search episodes in each condition



Target lexical item = tunnel earring

Communicative function of gestures

- *Visibility studies – native speakers in non-pedagogical interactions (Gesture studies):*
 - Variety of communication tasks (e.g., describing images; giving spatial directions) either FTF or audio only
 - Objective: to explore the impact of visibility on relationship between speech and gesture, comparing two conditions (Cohen & Harrison, 1973; Bavelas, Gerwing, Sutton & Prevost, 2008; Gerwing & Allison, 2011)
 - Results:
 - In FTF: gestures more informative than speech
 - Speech more informative in AUDIO than FTF

Communicative function of gestures

- *Studies on second language learners*
 - More gestures when speaking L2 than L1 (e.g., Faraco & Kida, 1998; Gullberg, 1998; Stam, 2006)
 - High degree of redundancy between gesture and speech (McCafferty, 2002) - cognitive, self-regulatory function?
 - Gestures help learners to make themselves understood “*by drawing on the underlying mimetic properties of gestural imagery*” (Stam & McCafferty, 2008: 15)

Studies comparing AC and VC or FTF

- Perceptions of OU tutors on online AC vs. FTF classes (Rosell-Aguilar, 2007)
 - Lack of access to paralinguistic cues in AC → difficulties perceiving & interpreting learners' reactions
- Learner perceptions AC vs. VC (Yamada & Akahori, 2009)
 - Communication easier when participants could see each other's image
- Negotiation of meaning in jigsaw task seeded with unknown lexical items AC vs. VC vs. FTF (Yanguas, 2010)
 - AC: learners used more linguistic resources and gave more elaborate responses
 - BUT more lexical items only partially understood in AC
 - Range of semiotic resources in VC enabled learners to have more precise understanding of target items; but less language

Research questions



- How is information about the target item (=tunnel earring) communicated differently in the two conditions?
 - *How does the verbal content of the lexical explanations differ?*
 - *What is the role for gestures and other multimodal elements?*
 - *When do L2 learners gesture and how do their gestures facilitate L2 communication?*
- Are there differences in how close learners get to the target item?

Context

- Semi-controlled corpus
- 40 Second-year French undergraduate students (non-specialists in English)
 - Divided between VC and AC conditions (10 mins)
- English teacher – FTF teaching undergraduate courses
 - No experience online teaching
 - Skype: personal communication
 - Teacher script → prompt questions, not previously seen photos, feign a lack of understanding of French

Detailed in Guichon & Cohen, 2014

Data analysis

- Interactions recorded (Camtasia)
- Multimodal transcriptions (ELAN)
- Isolation of word-search episodes (uncertainty → verbal reception / transition new activity)

- Semantic features analysis
- Distinguishing features of 'tunnel earring' determined (global exploration of data)
 - Physical: *location, position in ear, shape, size, material*
 - Body modification: *process, result*
 - Learner strategies: *synonym, comparison, judgement*

- “they put the size up”: *size, process*



- Information contributions coded (ELAN - 2 coders)
 - 98.4% agreement on decisions for verbal data
 - 89.6% agreement (visual data)

Quantitative analyses

1. VC vs. AC verbal mode only
 2. VC (verbal plus visual modes) vs. AC (verbal mode)
 3. VC (verbal vs. VC visual)
- ➔ In VC visual mode, gestures extremely rich in semantic information for:
- All physical features (location, position in ear, shape & size) except for material
 - Both features relating to body modification (process & result)






PHASE 1

“(there is a: (.) another man the first man er: has short hair and) a earring you know I donno if you see what I mean a earring that's inside the ear actually”

		VERBAL	VERBAL SEMANTIC FEATURES	VISUAL SEMANTIC FEATURES
1		a earring	Location Synonym	
2		you know I donno if you see what I mean		

PHASE 1




“(there is a: (.) another man the first man er: has short hair and) a earring you know I donno if you see what I mean a earring that's inside the ear actually”

		VERBAL	VERBAL SEMANTIC FEATURES	VISUAL SEMANTIC FEATURES
3		a earring	Location Synonym	Location
4		that's		Location Shape Size Process
5				Location Shape Size Position in ear
6				Location Shape Size Process
7				Location Position in ear Shape Size

Bold = semantic features present in visual mode not absent in verbal mode

PHASE 1

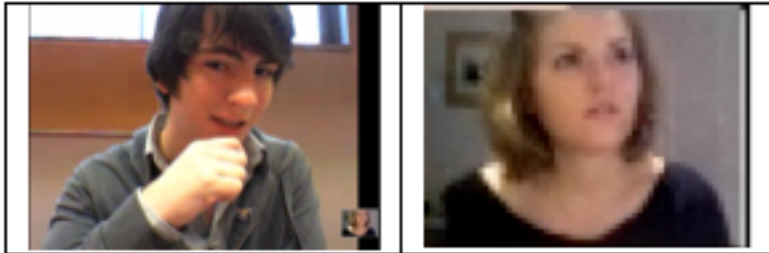
“(there is a: (.) another man the first man er: has short hair and) a earring you know I donno if you see what I mean a earring that's inside the ear actually”

		VERBAL	VERBAL SEMANTIC FEATURES	VISUAL SEMANTIC FEATURES
8		inside the	Position in ear	Location Shape Size
9		ear actually	Location	Location Position in ear
10				

Bold = semantic features present in visual mode not absent in verbal mode

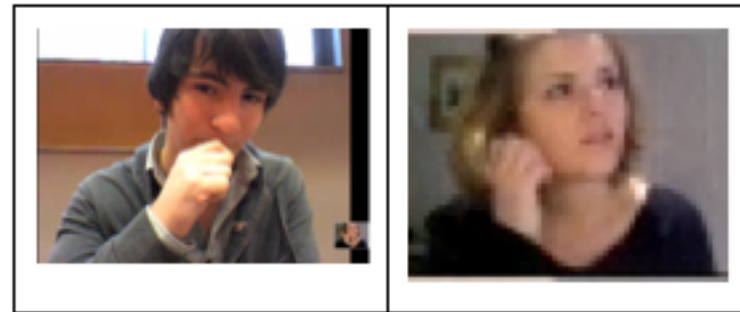
PHASE 2

1.



(End of phase 1)

2.










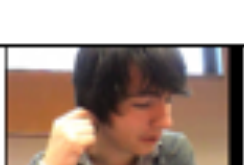
3.



PHASE 3



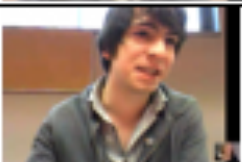

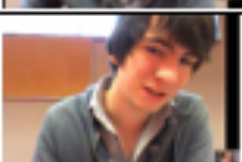

“erm: (1.5) (laugh) (1.0) how you say that/ (1.0) er: (2.5) its er: (0.5) just like an earring but that’s XX er a wood ring I think and er: they start with a small ring they er: (3.0) place it inside the the ear/ and then er: em step by step they er put the size up and finally (smiling) they’ve got a pretty big thing inside their ear”

		VERBAL	VERBAL SEMANTIC FEATURES	VISUAL SEMANTIC FEATURES
1		how you say that		
2		er: it’s er:		

		VERBAL	VERBAL SEMANTIC FEATURES	VISUAL SEMANTIC FEATURES
3		just like an earring	Comparison Location Synonym	
4		that's XX er a wood ring I think	Material* Shape	
5		er: they start with a small ring	Process Size Shape	Location Shape Size
6		they er:		Location Shape Size
7		place it		Location Position in ear Shape Size Process
8		inside the ear	Position in ear Location	Location Position in ear Shape Size Process

PHASE 3

BOLD = semantic features present in phase 3 but absent in phase 1
*** = semantic features only in the verbal mode**

		VERBAL	VERBAL SEMANTIC FEATURES	VISUAL SEMANTIC FEATURES
9		and then er:	Process	
10		em		
11		step by step	Process	
12		they put the size up	Process Size	
13		and finally they've got a	Process Result*	
14		pretty big thing inside the ear	Judgement* Size Position in ear Location	Location Position in ear Size Shape

PHASE 3

BOLD = semantic features present in phase 3 but absent in phase 1
*** = semantic features only in the verbal mode**

Summary

- Phase 1
 - Gestures help reduce cognitive load for the learner → to plan what he wants to say
 - Verbal description of earring vague with 3 semantic features conveyed: location, synonym, position in ear
 - Visual mode covers same features but adds 3 features: shape, size, process → (intentional or not....) communicative function
 - Little overlap of information in verbal and visual modes

 - Phase 3
 - Verbal mode duplicates what demonstrated through gestures in phase 1
 - Gestures less explicit and words convey more semantic information
- Having embodied salient physical semantic features of tunnel earring in visual mode in phase 1, learner transfers semantic information to verbal mode in phase 3

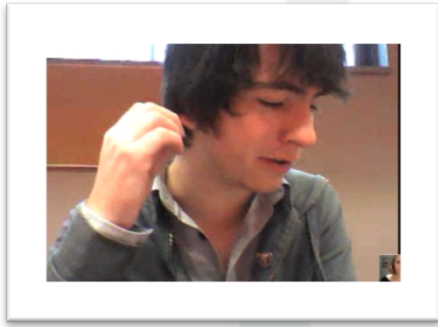
AC examples

L: Learner
T: Teacher

	Learner 24	Learner 27
	<p>L (no::: but er:: (0.5) h (..) one of the man have) er (..) earrings (0.3) earrings T (laugh) T uhu L so er::: (...) a bit strange earrings (laugh) so er: I don't know</p>	<p>L (because er the first of them has) a real big 1.3)) er:: how can I say It's like an earring but [bigger] T okay/ (.) mhm</p>
<i>Semantic features present</i>	<p>Location x 3 Synonym x 3 Judgement x 1</p>	<p>Location x 1 Synonym x 1 Comparison x 3 Size x 2</p>
<i>Semantic features absent</i>	<p>Position in ear Shape Material Process Result Comparison Judgement</p>	<p>Position in ear Shape Material Process Result Judgement</p>

Advantages of VC

1. Richer pushed output for learner
2. Learner gets closer to target lexical item: number of semantic features
 - VC = 10 → precise
 - AC = 3 or 4 → generic
3. Repetition of semantic features in verbal and visual modes beneficial to the speaker (pushed output) but also for interlocutor's comprehension
4. VC allows teacher to show degree of understanding without having to contribute verbally and interrupt learner → learner pursues search and contributes further to interaction



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