

Corpage¹: A Reference corpus for the elderly's language

CorpAGEst²: A Multimodal corpus for the elderly's language

VIntAGE³: Videos to study Interaction in AGEing

¹ C. T. Bolly, M. Masse & P. Meire (Université catholique de Louvain)

² C. T. Bolly & D. Boutet (Université catholique de Louvain, CNRS & UMR 7023 SFL)

³ G. Duboisdindien & C. T. Bolly (Université Paris Ouest Nanterre La Défense & Université catholique de Louvain)

Scientific interests

- Language: Functional patterns of pragmatic markers (e.g., *euh* uh, *bon* well) and pragmatic gestures (e.g., Palm-up, head tilt) → 'Multimodal pragmatic constructions' (Bolly, 2015)
- Aging: Self-esteem, Tip Of the Tongue (TOT), quality of life, social network, cognitive loss, communicative competence, compensatory strategies, aging well and adaptive abilities, interaction and alignment, non-medical care, etc.
- Hypotheses: Pragmatic markers and pragmatic gestures used by old speakers to compensate for physical, psycho-social or cognitive age-related changes, in order to express their attitudes, emotions, as to remain involved in the interaction

Ongoing PhD Theses

- G. Duboisdindien (dir.: C.T. Bolly, A. Lacheret): impact of (non)verbal pragmatic markers on the language of frail very old people over time
- A. Lepeut (dir.: L. Meurant, C.T. Bolly): interactive gestures, signs, and space in old speakers (Belgian spoken French / French Belgian Sign Language-LSFB)

Collaborations

- Multimodal interoperable model to annotate the functions of pragmatic markers and gestures (Bolly & Crible, 2015) > Panel at IPRA 2017
- Cross-linguistic approach to gestures in sign language and spoken language (with L. Meurant & S. Gabarró-López at UNamur)

Size (estimation)

2.5 M words, 144 hrs. > transcribed/normalized: 8.5 hrs. (130,000 tokens)

Audio recordings

212 audio recordings, face-to-face, semi-directed interviews
2 interviews per old speaker
Tasks: Int. n°1: Milestones in aging / Int. n°2: Self-perception of aging today

Participants

106 very old people (75 y. old and more), interviewed by a Master student in psychology
Native-speakers of French, living at home
No major cognitive impairment (WITHOUT any clinical testing)
Volunteers, recruited by the student

CORPAGE

Metadata

Age, education, environment, profession, social tie between the speakers, self-assessment of health, quality of life, etc. (likert scales)

Accessibility, storage

Transcribed (.doc): Valibel conventions > 5% normalized and anonymized
Ethics: oral/written informed consent

Diane (ageJD1r-2), Social tie betw. speakers: neighbors, Task n°2: Self-perception of aging
ageQL0 (22 y. old): mais justement qu'est-ce que vous trouvez difficile dans le fait de vieillir...
ageJD1 (85 y. old): mais tu sais euh on se demande toujours comment sera la fin de sa vie (mm)
ageJD1: on ne la connaît pas personne ne la connaît (mm mm)
ageJD1: alors j'essaie de ne pas y penser (rires)
ageQL0: mm oui oui oui (rires)
ageQL0 (22 y. old): but yes what do you consider to be hard in the experience of aging...
ageLD1 (85 y. old): but you know uh you always wonder how the end of your life will be (mm) we don't know it nobody knows it (mm mm) so I try not to think about it (laughs) mm (yeah yeah yeah) (laughs)

Size

Approx. 250,000 words; 16.8 hrs. > Sampling procedure for the annotation

Audio and video recordings

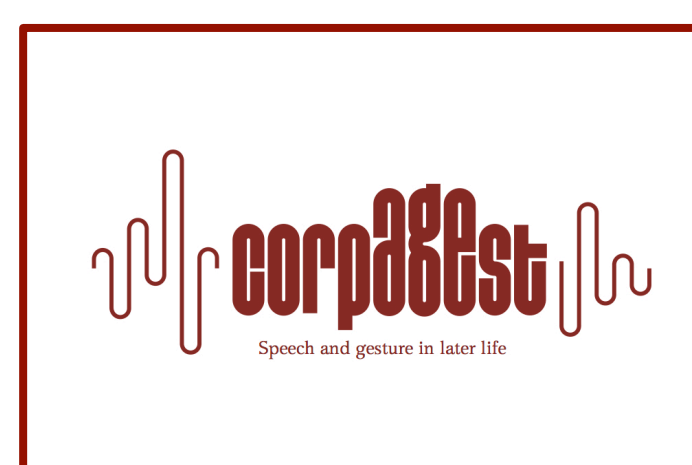
18 audio and video recordings, face-to-face, semi-directed interviews
2 interviews per old speaker

Participants

9 very old people (75 y. old and more), interviewed by an intimate (Int. n°1) and unknown person (Int. n°2)
Native-speakers of Belgian-French, living at home or in residential home
No major cognitive impairment (WITH clinical testing: MoCA screening test)
Mean age: 85; sex: 8 F, 1 M; average MoCA-Test score: 25/30

Task Type	Interview n°1 (with an intimate person)	Interview n°2 (with an unknown person)
Task A: Descriptive task with a focus on past events	Task 1A: Milestones in aging	Task 2A: Milestones in progress
Task B: Explicative task with a focus on present-day life	Task 1B: Self-perception of aging	Task 2B: Self-perception of every-day environment

Table 1. Tasks for the transversal corpus data collection



Modality: nonverbal/gesture	Articulators
1. Facial displays	Eyebrows Eyes Gaze Mouth
2. Hand gestures	Hands
3. Body gestures	Head Shoulders Torso Legs Feet
Modality: verbal/speech	Speech of analysis Pragmatic markers

FUNCTION-BASED ANALYSIS
- Multimodal annotation of emotions
- Multimodal annotation of pragmatic functions

Table 3. Form-based and function-based approach to corpus data in CorpAGEst

CORPAGEst

Media and size

Audio: 2 sound signals, .wav, mono, 44.1 KHz, 16 bits
Video: 2 cameras, H264, MPEG4

Metadata

Situation: date, place, duration, quality of the recordings, etc.
Speakers: age, sex, education, profession, mother tongue, geographic origin, living environment, social tie, health/quality of life (subjective scales), etc.

Clinical tests

French IRI test of empathy (Gilet et al. 2013)
MoCA - Montreal Cognitive Assessment Test (Nasreddine 2003 to 2014)
AGGIR - French test for the degree of dependency

Ethics

Validation by an Ethical Committee (cf. UE Marie Curie CorpAGEst project)
Informed consent (oral/written)
Voluntary participation, recruited by the intimate person/researcher
Anonymization procedure (names, places, sound signal and video signal)

Accessibility, storage

Transcribed (.doc): refined Valibel conventions
Ortolang resource center in France (ongoing storage process)



VIntAGE

Size

20 hrs. > Sampling procedure for the gesture/speech annotation

Audio and video recordings

36 audio and video recordings, face-to-face, semi-directed interviews
4 interviews per old speaker (conducted by an intimate)

Participants

9 very old frail people (75 y. old and more), interviewed by an intimate
Native-speakers of French-French, living at home
Minor cognitive impairment (WITH clinical testing: MoCA screening test)
Mean age: 83; sex: 9 F; average MoCA-Test score: 20/30

Task Type	Interview n°1	Interview n°2	Interview n°3	Interview n°4
Task A: Focus on past events	Task 1A: Milestones in aging	Task 2A: Visual reminiscence from a personal picture	Task 3A: Olfactory reminiscence	Task 4A: Auditory reminiscence
Task B: Focus on present-day life	Task 1B: Society's perception of aging	Task 2B: Self-perception of everyday environment	Task 3B: Family and social relationships	Task 4B: Self-perception of aging

Table 2. Tasks for the longitudinal corpus data collection



Tristane (ageIT1), 80 y. old, education: 11 y., MoCA: 23>20>18
ageIT1: **et puis bon bah** moi j'étais d'accord **donc** je dis à mes copines aujourd'hui je ne vais pas jouer on s'en va au goûter des prisonniers avec ma mère à la Maison Saint-Jean **et** le jour du treize mai quarante-trois le Grand Bombardement **normalement** je devais être avec mes amies à jouer sur les trottoirs et **pour une fois** j'étais partie au goûter des prisonniers avec ma mère

malheureusement (...) et mes deux petites amies elles ont été tuées **donc** si j'avais été avec eux je serais tuée **et tu vois c'est quand même** une grande **euh** je suis revenue **et je euh** je suis revenue ça n'était que des monts de briques que des maisons démolies

ageIT1: **and then well hum** I agreed **so** I said to my two friends : today I won't play with you because I have to go to the prisoners support tea party to the social club with my mother **and** the day of the 13th 1943 it was the Great Bombing Attack I would have played with my friends **and** for once I was with my mother at the social club **and** my two friends were killed **so** if I had been on the street with them, I would have been killed **and you see it is such a hard uh** I went back there were only mountains of bricks everywhere all houses were blown off by the explosion