Language and (inter)subjectivity in normal aging
A corpus-based multimodal approach to the empathic ability of very old people

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Pragmatics is a subfield of linguistics defined as "the study of language from the point of view of users, especially of the choices they make, the constraints they encounter in using language in social interaction and the effects their use of language has on other participants in the act of communication" (Crystal 1997: 301)

Pragmatic markers and linguistic (inter)subjectivity (Brinton 1996; Hansen 1998)

"A **pragmatic marker** is defined as a phonologically <u>short</u> item that is <u>not syntactically connected</u> to the rest of the clause (i.e., is parenthetical), and has <u>little or no referential meaning</u> but serves <u>pragmatic or procedural purposes</u>" (Brinton 2008: 1)

- **Expressive** or **subjective** function (speaker-oriented): to express the speaker's attitude (expression of feelings, (emotional) attitudes, value judgments, mitigation, assessments of epistemic stance, style, "back-channels" signals of understanding and continued attention, etc.)
  → Ex.: *right, well, okay, I see, mm*
- **Interactional** or **intersubjective** function (addressee-oriented): to achieve cooperation, to create shared values or intimacy between speaker and addressee (appealing to the addressee, confirming shared or common knowledge, checking or expressing understanding, requesting confirmation, saving face (politeness), etc.) → Ex.: *you know, as you know, don't you think?*

Pragmatic competence (Kasper 1997, Rose & Kasper 2002)

The ability to use available linguistic resources (*pragmalinguistics*) in a <u>contextually appropriate</u> fashion (*sociopragmatics*)
→ Ex.: directness and indirectness, routines, forms which can intensify or soften communicative acts

- **Pragmatic language skills** usually studied in the 'Pathology of Aging' (cf. Berrewaerts *et al.* 2003): information processing efficiency, cohesion/coherence in discourse, narrative competence (e.g. (off-target) verbosity), conversational turn-taking and discourse structure, use of speech-acts and repairs

Empathic ability as a part of the pragmatic competence

Cognitive empathy, perspective-taking, and theory of mind (ToM) are overlapping "constructs referring to understanding <u>another's beliefs and desires</u>" which are "essential prerequisites for <u>successful social interaction</u>" (Bailey & Henry 2008: 219)

- Tendency to **grow less empathic with age** : age-related deficits in ToM, in perspective-taking, and in cognitive empathy > loss in the ability to see things from someone else's point of view (Bailey & Henry 2008; Kemp *et al.* 2011)
- Empathy as the **dynamic interaction of 4 necessary components** ("neural networks"): 1) affective sharing; 2) self-awareness; 3) mental flexibility; 4) emotion regulation
  → If any of the components missing/inhibited, the experience of empathy fails to emerge (Decety & Moriguchi 2007)

"Speech events have to be apprehended in their contexts, as shaped by the creative acts of speaking persons" (Firth 1957: 193)

CORPAGE: A new reference corpus in elderly's language

A **multimodal** corpus (**text, sound, and gesture**) designed to serve as a **reference corpus** (Baude 2006) for **comparative studies** in elderly's language

→ Content [June 2012] (> *verbatim*): 98 subj.; 196 interviews; approx. 1.5 million words; approx. 144 hours

- Very old people (≥75 years old)
- Spoken Belgian French (norms and conventions from the *Valibel* centre; informed consent agreements and anonymity)
- Face-to-face conversations at home (dialogs)
- Task- and topic-oriented interviews:
  ① 1st interview is descriptive > drawing a life line
  ② 2nd interview is narrative > self-perception of aging
- Metadata: 1) material and situation (date, place, etc.); 2) text (e.g. size); 3) subjects (age; place of residence (home, rest home, other); mother tongue; civil status (e.g. widow); level of education; health; etc.)

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Pilot study

- **Aim:** This research project aims at establishing the linguistic profile of the elderly in normal aging, looking at their pragmatic competence

- **Hypothesis:** Expressive (i.e. subjective) and interactional (i.e. intersubjective) **pragmatic markers** could be seen as key indicators of **interpersonal competence** >>> A change in the interpersonal pragmalinguistic competence by very old people would be an indicator of a change in their **empathic ability**

- **Ecological and empirical method:** Corpus-based approach ('evidence-based') >>> To mirror language in use as realized in context(s)

"A **corpus** can be defined as a <u>collection of texts</u> assumed to be representative of a given language put together so that it can be used for linguistic analysis " (Tognini-Bonelli 2001: 2)
→ Naturally-occurring data (*vs.* elicited data), explicit design criteria, specific purpose
→ Representativeness: from the individual to the group (Biber 1993)

ID code	Age	Sex	Civil status	Education	Social status	Health	Aid	Social ties betw. speakers
ageJM1 'Jeanne'	90	F	Widower	University	Unemployed	Heart failure (> pacemaker)	Home help (housework)	Grand-mother
ageFB1	85	M	Married	Primary school	Worker	Heart failure, Kidney stones	Home help (housework), Meal delivery	Family friend
ageNT1	79	F	Widower	Higher education	Employee	n/a	n/a	Grand-mother's friend
ageIP1	84	F	Widower	Secondary school	Unemployed	n/a	Home help (housework)	Grand-mother
ageJL1	88	F	Married	Secondary school	Self-employed	Degenerative osteoarthritis	Home help (hygienic care)	Neighbor

Data: 5 subj. (M=85.2); 10 interv.; 7 hours; approx. 80.000 words

Tool: A KWIC (*Keywords in Context*) concordancer is a corpus analytical tool for making concordances and collocation tables by means of electronic files (here, *Antconc 3.2.1*)

	Task n°1	Task n°2
Expressive/Subjective (PMs : *tu sais, vous savez* 'you know')	72	14
Interactional/intersubjective (PMs: *je crois* 'I think, I believe')	25	43

Results 1: Type-task dependency

CORPAGE: Task n°1 - Line life (ageJM1 'Jeanne'; 90 ans; 2012) [1:13:07]
<u>Jeanne</u>: il y a des mots c/ |-comme ça <u>Charline</u>: oui | que je ne retrouve plus [...]
<u>Jeanne</u>: et anorexique je ne parvenais pas à le retenir / j'ai / alors je pense à quelque ch/ je pensais a anus (rires) / comme c'est **quand même** le tube digestif et qui est en bas (rires) et **ça va** depuis lors je n'oublie plus (rires) et encore l'autre jour aussi un mot / **tiens je ne sais p/ tu vois** / si / j'ai / j'oublie certains mots
<u>Charline</u>: oui
<u>Jeanne</u>: 'fin / je retombe dessus après |- hein <u>Charline</u>: oui |- après **je dis** mais c'était ça ce mot-là / c'était ce mot là que je devais dire // oui **ça oui** / avant je parlais très facilement tous les mots justes me revenaient / **ça non** / j'ai perdu [...]
<u>Charline</u>: mais on va / on va |- terminer
<u>Jeanne</u>: oui - | parce que **écoute hein** c'est un roman fleuve

Results 2: Individual variation

Results

1. **Regularities**: Observed effects of <u>task significance</u> (descriptive *vs.* narrative) on the type of constructions used (intersubjective *vs.* subjective pragmatic markers) ($X^2 = 35.9$; df = 1; p = .000) in very old people's language
   → **Interpretation**: More intersubjective markers in intersubjective contexts (task n°1) AND more subjective markers in subjective contexts (task n°2) >>> Tendency to <u>maintain their interpersonal competence</u>; the task-type factor is a dependent variable to be taken into account in the study of empathic ability of the elderly

2. **Inter- and intraindividual variation:** 90% of the *tu sais* ('you know') as pragmatic markers are produced by the same speaker (ageJM1 ; 90 ans), regardless to the type of task
   → **Interpretation**: Stress on the role of <u>idiosyncratic uses</u> of specific pragmatic markers, i.e. each person displays a preference for specific lexical forms; the tendency to preserve interpersonal competence has to be carefully considered in light of individual variation >>> The <u>full distribution and variety of markers</u> produced by each individual has to be taken into account for a <u>comprehensive approach</u> to interpersonal competence

Conclusion and perspectives

- Corpus-based analysis in the study of pragmalinguistic competence of very old people represents a **promising field** of investigation for future research on normal aging
  → Regularities and individual variation + Context of use

- This reference multimodal corpus would serve as a basis for **comparison** in longitudinal (adults > middle old > very old people), clinical (pathologic vs. sane), or sociolinguistic studies (home vs. rest home environment)
  → Early detection of age-related dementia or diseases
  → In favor of successful aging

Future prospects

- **Strong hypothesis:** A change in the use of <u>gesture</u> in the elderly's interaction could be understood as an <u>adaptive strategy</u> responding to a loss in pragmatic (linguistic) competence (McNeill 1992 ; Feyereisen & Havard 1999)
- **Method**: <u>Multimodal</u> (verbal, audio, <u>video</u>) and <u>functional</u> analysis of the impact of gesture units on the structure of discourse

<u>Léon</u> (ID code: ageAF1; age: 78): maintenant on apprend la philosophie / **m'enfin qu'est-ce que tu veux** / je sais pas si ça servira un jour mais enfin

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