



# Old age, aging and their representations:

*methodology for designing an online survey*

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**CLARE 5 – University of Alaska**  
**Session 5: Aging in Society**  
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# 1. Introduction

Ongoing, **interdisciplinary, multilingual research project** carried out by the Linguistics Research Center – Corpora, Discourses & Societies with various research labs in France: “**Old Age and Aging: Discourses and Representations**”

- [Centre d'Études Linguistiques – Corpus, Discours & Sociétés](#) (CEL) – Lyon 3
- [Centre de Recherche en Linguistique Appliquée](#) (CeRLA) – Lyon 2
- [Marge](#) – Lyon 3
- [Équipe de recherche de Lyon en sciences de l'Information et de la COmmunication](#) (ELICO) – Lyon 1, Lyon 2, Lyon 3, ENSSIB, Sciences Po, Jean Monnet Saint-Étienne
- [Institut de Recherches Philosophiques de Lyon](#) (IRPhiL) – Lyon 3
- [Centre de recherche en droit et management des services de santé](#) (CRDMS) – Lyon 3
- [Laboratoire Interdisciplinaire de Recherche sur les Transformations des pratiques Éducatives et des pratiques Sociales](#) (LIRTES) - Paris Est – Créteil
- [Analyse et Traitement Informatique de la Langue Française](#) (ATILF) – Lorraine

Funded project (€ 10,000) in 2022 by the University of Lyon (Jean Moulin) (*Projet Bourgeon* → intended to develop emerging research projects)

 **Beginning of the project** (expected to develop over a 4-5 year-period)



# 1. Introduction

Topical nature of the project → growing interest in age-related questions due to growing population of aging people all over the world

Various and varied studies on CARE and/or medical side.

**Originality** of our project: focus on the **linguistic aspect** to study the **representations of old age and aging depending on the different languages, cultures and domains, in an interdisciplinary approach** (// CLARe network: “interaction and collaboration between diverse disciplines [...] to allow for collaborations across these barriers” (Gerstenberg & Lindholm 2019: 1)).

## 3 work packages:

- **WP1**: Data Management Plan
- **WP2**: Online Multilingual Survey
- **WP3**: Creation of two databases (legal texts on old age and aging + Doctorate of Medicine and Pharmacy (MD/PhD) dissertations)



# 1. Introduction

**Multilingual** project (*Arabic, Chinese, English, French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian, Spanish, Ukrainian*) BUT presentation will only focus on data from **English speakers** to investigate the connections between language and aging (cf. sociolinguistics).

## **Focus on WP2:** Online Multilingual Survey

- Why create a digital corpus on old age, aging and their representations? How is such a corpus designed?
- What personal data do we need to include in our study? Why? How to protect the data?

## **DISCLAIMER**

- not a theoretical presentation on old age and aging or linguistics
- more a methodological reflection at a given moment of a research project, with presentation of challenges faced
- advice, criticisms, suggestions for possible improvements more than welcome!



# 1. Introduction

## **Theoretical framework:** sociolinguistics

“Sociolinguistics is a very broad field, and it can be used to describe many different ways of studying language. A lot of linguists might describe themselves as sociolinguists, but the people who call themselves sociolinguists may have rather different interests from each other and they may use very different methods for collecting and analysing data. [...] Is sociolinguistics about how individual speakers use language? Is it about how people use language differently in different towns or regions? Is it about how a nation decides what languages will be recognised in courts or education? The answer is: yes, yes, and yes.” (Meyerhoff 2018: 1)

## **Methodology:** corpus linguistics

“corpus linguistics techniques are useful for undertaking in-depth, quantitative and qualitative examinations of large collections of health-related language data” (Brookes & Harvey 2016: 228)

## Outline

1. Introduction
2. Corpus methodology for the creation of a multilingual corpus on the representations of old age and aging
3. First results (*English corpus only*)
4. Concluding remarks and further research



## 2. Corpus methodology for the creation of a multilingual corpus on the representations of old age and aging

### Why create a digital corpus on old age, aging and their representations?

Lack of data regarding the **perceptions and representations of old age and aging through “everyday speech”** (= speech of any non-specialist speaker, but also non-medical expert speech: actors of the silver economy, paramedical professionals, etc.).

- **foster reflection on old age and aging** around the notion of everyday, ordinary speech in a multidisciplinary framework;
- creation of a multilingual online survey intends to serve as a database for a **comparative sociolinguistic and sociological study**;
- promote and encourage comparisons between different languages and cultures;
- to answer “the crucial question to what extent linguistic data can tell us something on aging vs. how much they are simply the result of specific linguistic environments” (Gerstenberg & Lindholm 2019: 4).



## 2. Corpus methodology for the creation of a multilingual corpus on the representations of old age and aging

### What are the tools used to design and process data?

- online survey platform **LimeSurvey** to fulfil **GDPR** (Règlement Général sur la Protection des Données, i.e. the European “General Data Protection Regulation”) requirements:
  - Data stored on the University of Lyon’s servers → guarantees optimal conformity with issues related to data protection;
  - Adaptation of the online survey to all types of digital media (computer, tablet, smartphone) → allows respondents to answer the survey on the medium of their choice.
- survey posted online;
- data retrieved and organized in Excel + analyzed in RStudio®, AntConc®, #LancsBox®, WMatrix5®, etc.





## 2. Corpus methodology for the creation of a multilingual corpus on the representations of old age and aging

2 main sections in the online survey

### Section 1. About you...

= **10 questions** about **sociolinguistic variables** such as gender, age, marital status, country of residence, country of birth, place of residence (rural vs. urban area), education, employment (active, unemployed, retired), etc.

- Allows multivariate analyses taking into account different variables;
- Questions: *Do perceptions vary according to age? gender? Place of residence (rural/urban)? etc.*



## 2. Corpus methodology for the creation of a multilingual corpus on the representations of old age and aging

### Section 2. Your Perception of Old Age and Aging

= **about 20 questions** to get a better understanding of the respondents' perceptions and representations of old age and aging;

Some examples of questions:

→ *When you talk about a person of a certain age, you refer to them as:*

- old
- elderly
- both

*Elderly* and *old* are the two main terms used in English to refer to people who are no longer considered “young”.



## 2. Corpus methodology for the creation of a multilingual corpus on the representations of old age and aging

### Section 2. Your Perception of Old Age and Aging

#### → *You consider yourself as...*

Auto-designation task to inquire people's self-perceptions in terms of old age and aging

#### → *According to you, from what age is a person considered "old"?*

#### → *According to you, from what age is a person considered "elderly"?*

Quantitative data that is easily quantifiable → when are we considered an old/ elderly person?

#### → *How would you describe an "old" person?*

#### → *How would you describe an "elderly" person?*

Qualitative data → what are the main characteristics of old/ elderly people? Is "old" the same as "elderly"?



## 2. Corpus methodology for the creation of a multilingual corpus on the representations of old age and aging

### Section 2. Your Perception of Old Age and Aging

→ ***According to you, is “being retired” synonymous with “being an old/elderly person”?***

Retirement tends to be associated to old/elderly people, is that always the case? What are the reasons for this association?

→ ***According to you, is there any difference between “old age” and “aging”?***

Are “old age” and “aging” perceived as synonymous? If not, what are the main differences? Are there similarities?

→ ***According to you, what are the signs of “old age” ?***

→ ***According to you, what are the signs of “aging”?***

Qualitative data (descriptions) that can be investigated through semantic tagging, collocations, word frequencies, etc.



## 2. Corpus methodology for the creation of a multilingual corpus on the representations of old age and aging

### Section 2. Your Perception of Old Age and Aging

→ *In terms of “old age” and “aging”, what words would you use to describe women and men?*

Are the representations of old age and aging the same for women and men?

Etc.



## 2. Corpus methodology for the creation of a multilingual corpus on the representations of old age and aging

Some problems regarding the very nature of the different representations people from various cultures have of old age and aging, especially for two questions:

- *When you talk about a person of a certain age, you refer to them as:*

- old
- elderly
- both

→ no real equivalents for “old” vs. “elderly” in German, the very structure of the survey had to be modified;

→ open question [German]: *“When you talk about a person who you think is no longer young, what expression do you use? Maximum 10 words.”*

## 2. Corpus methodology for the creation of a multilingual corpus on the representations of old age and aging

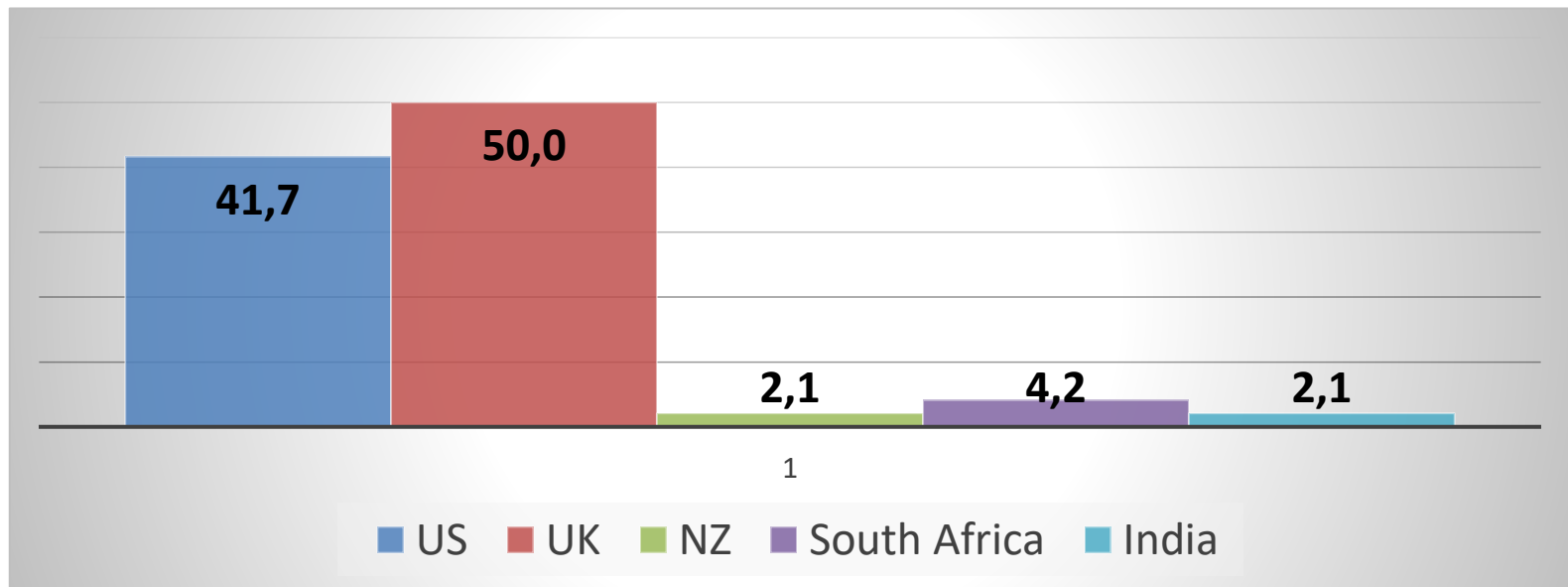
- According to you, is there any difference between “old age” and “aging”?

→ question difficult to verbalize for Chinese, Korean and Japanese translators (*old age* (i.e. *result*) and *aging* (i.e. *process*) = overlapping concepts)

### 3. First results (English corpus only)

Presentation of some analyses on a small, limited, random sample from the English survey

48 respondents selected (criterion → had to be born or live in an English-speaking country)



Respondents' place of birth (%)



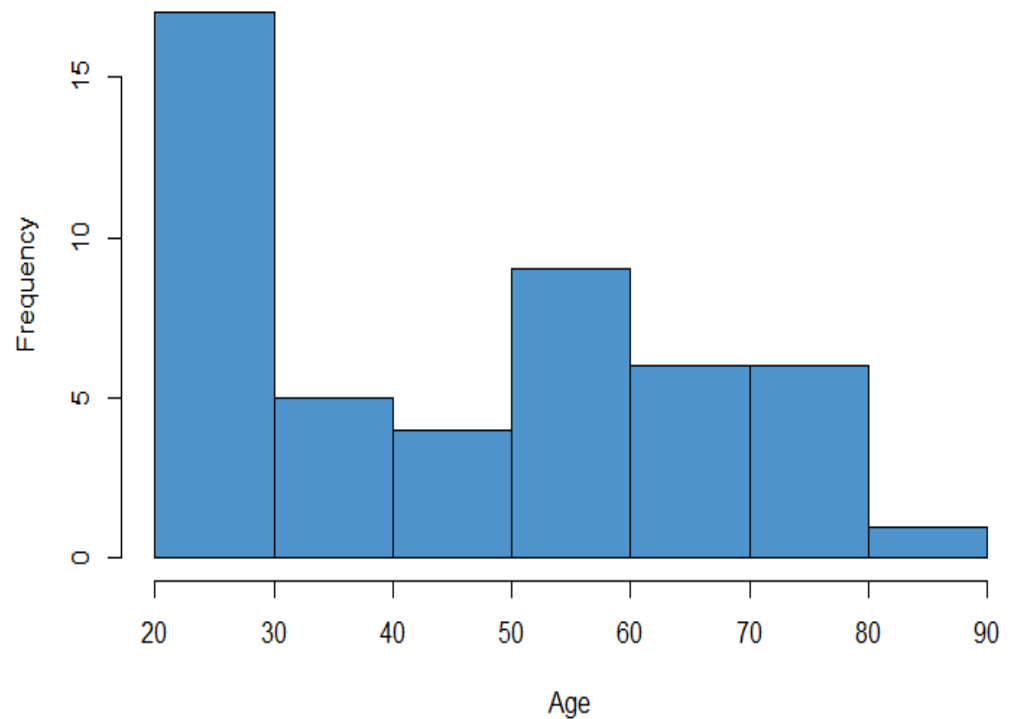
### 3. First results (English corpus only)

#### Age distribution

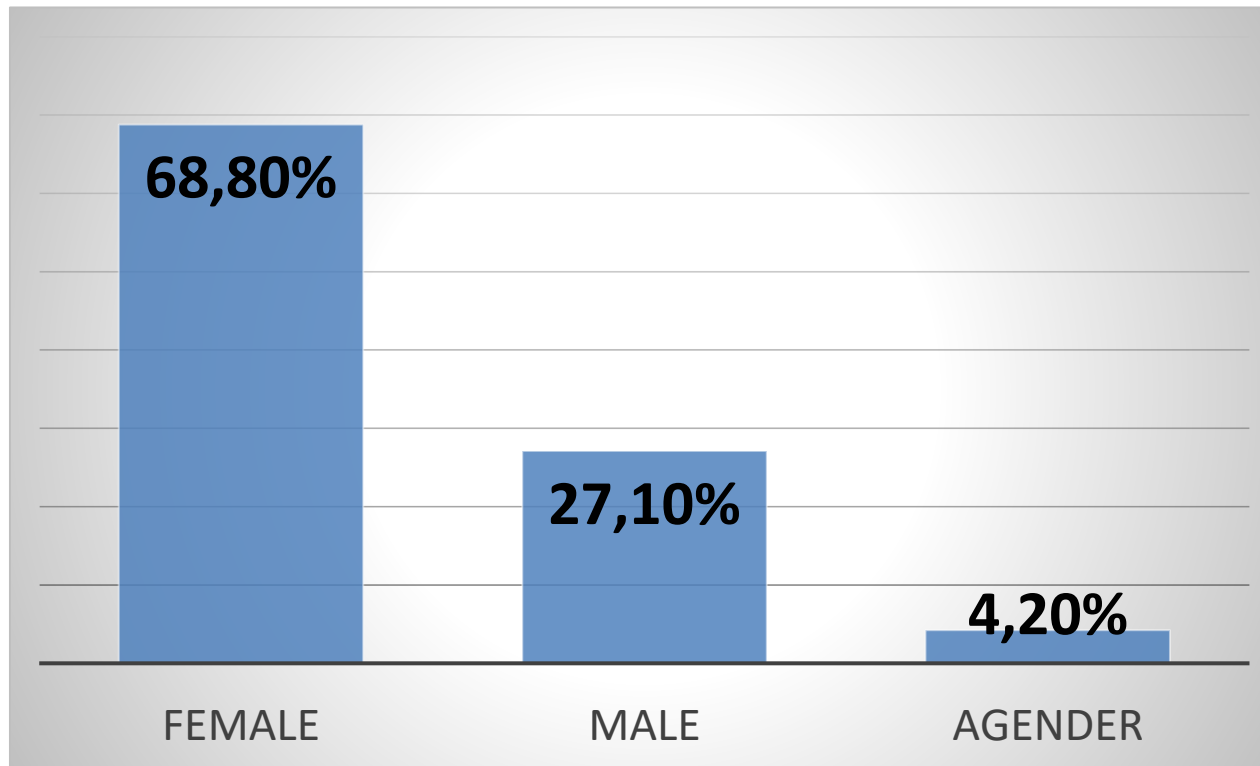
- Age range: 20 to 81
- Average age: 46.6
- Median age: 47.5

#### Comments

Over-representation of 20-30 year-old respondents, mostly students(?)



### 3. First results (English corpus only)

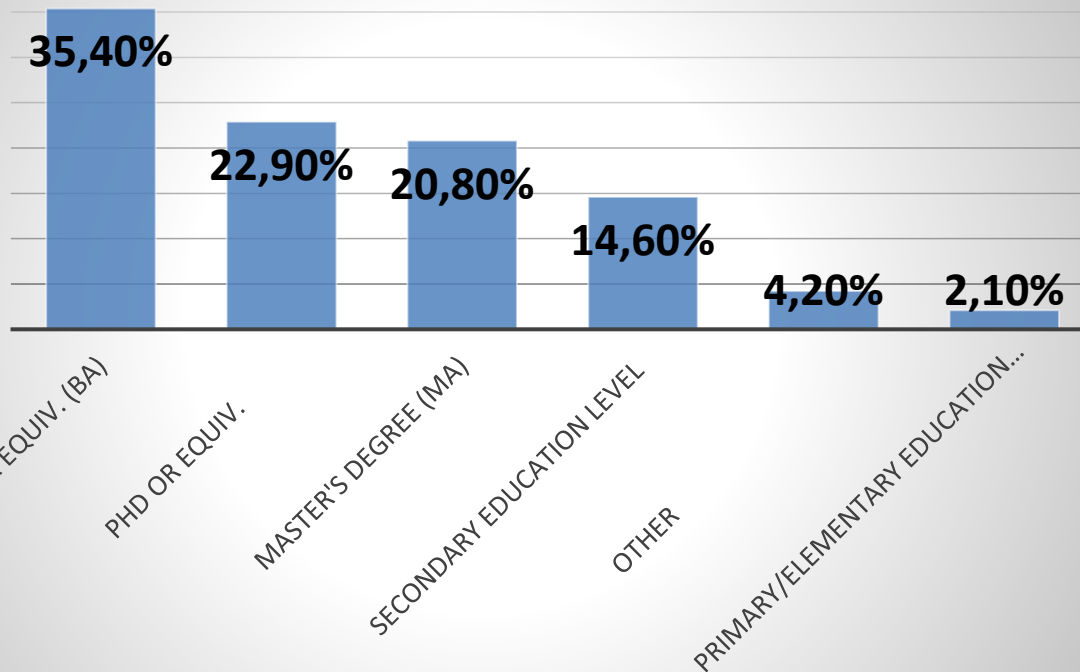


Gender distribution (%)

#### Comments

Over-representation of women compared to men(?)

### 3. First results (English corpus only)



#### Comments

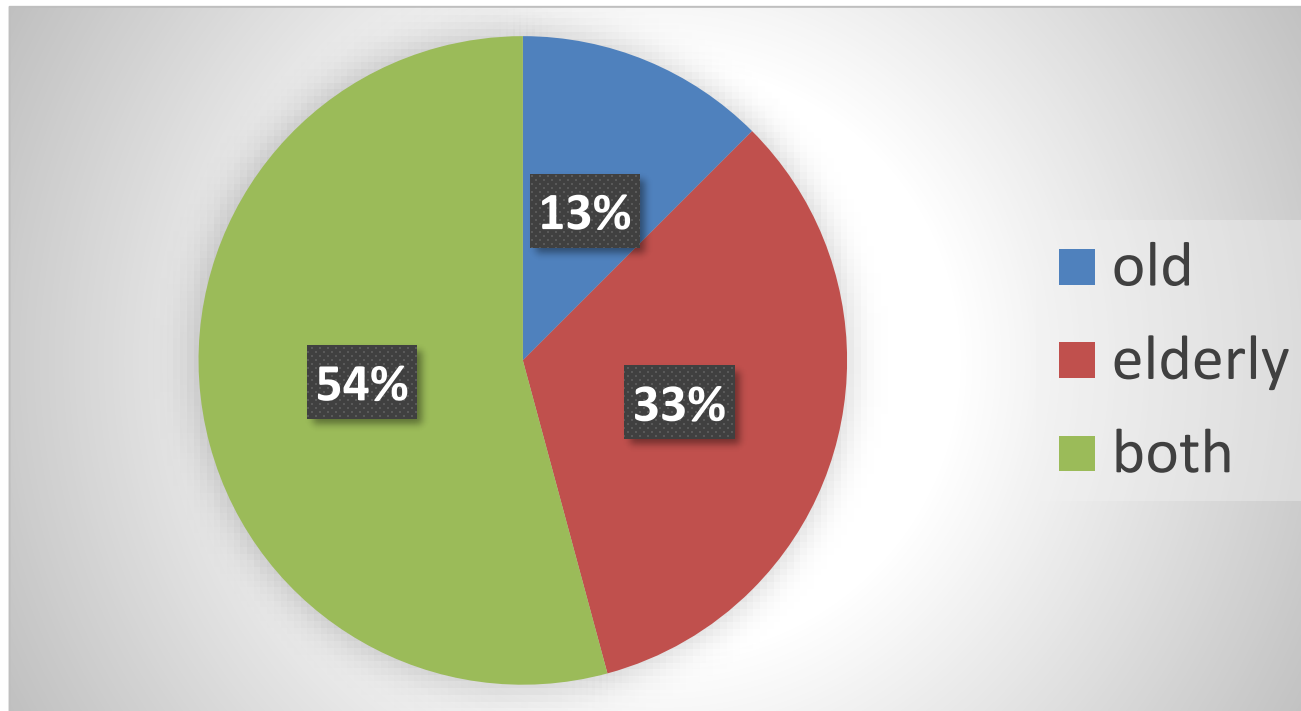
Over-representation of higher education levels i.e. 83.3%(?)

Education distribution (%)



### 3. First results (English corpus only)

**1<sup>st</sup> type of question:** related to the denomination of old/elderly people



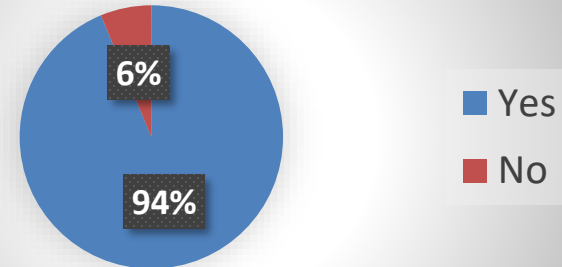
Ways of referring to someone of a certain age (%)

### 3. First results (English corpus only)

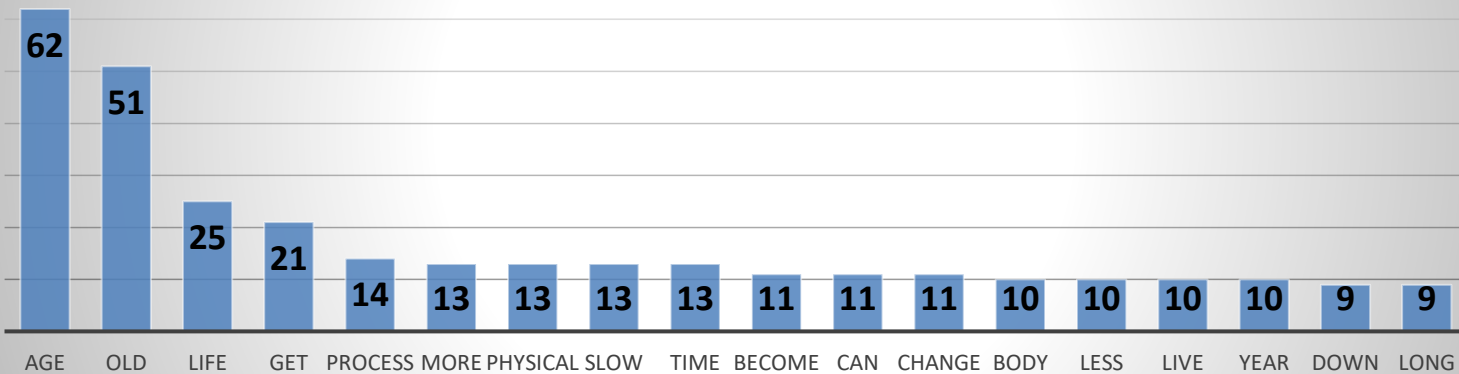
**2<sup>nd</sup> type of question:** related to the differences btw “old age” and “aging”

According to you, is there any difference between “old age” and “aging”?:

- Yes: 45 (= 93.75%)
- No: 3 (= 6.25%)

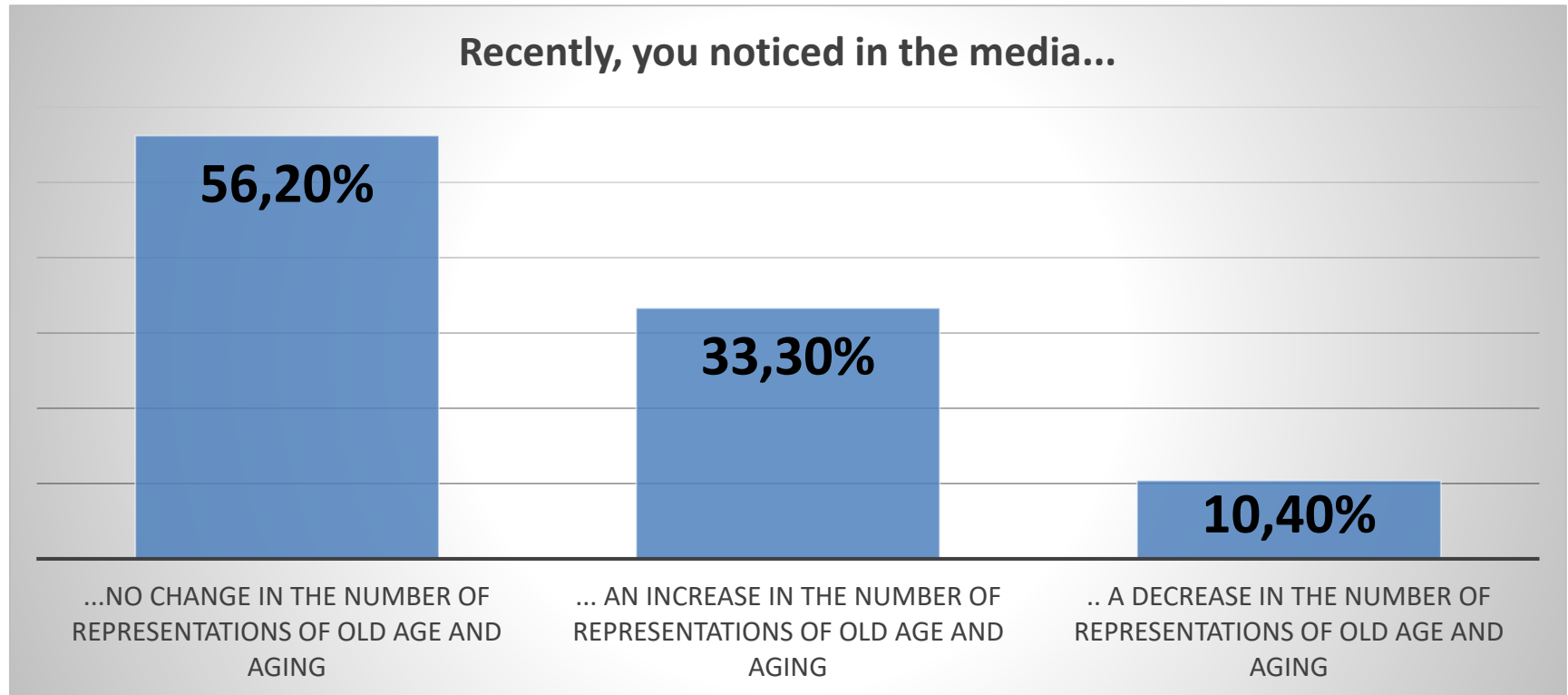


Most frequent lexemes to define “old age” and “aging” (AntConc)



### 3. First results (English corpus only)

**3<sup>rd</sup> type of question:** related to the media representation of old age and aging



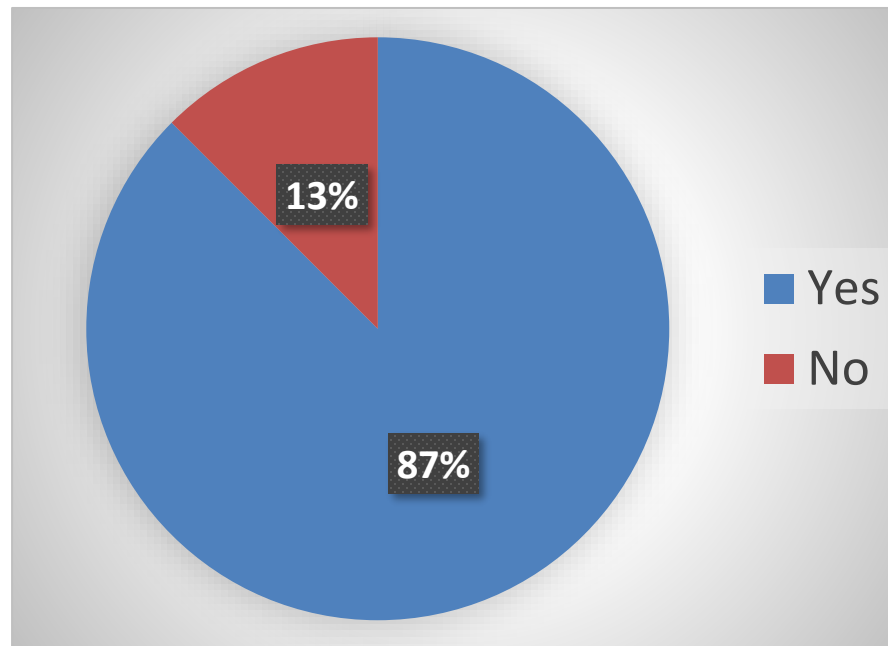
**Representations of old age and aging in the media (%)**

### 3. First results (English corpus only)

**4<sup>th</sup> type of question:** related to gender differences

**Do you consider women and men similarly in terms of “old age” and “aging”?:**

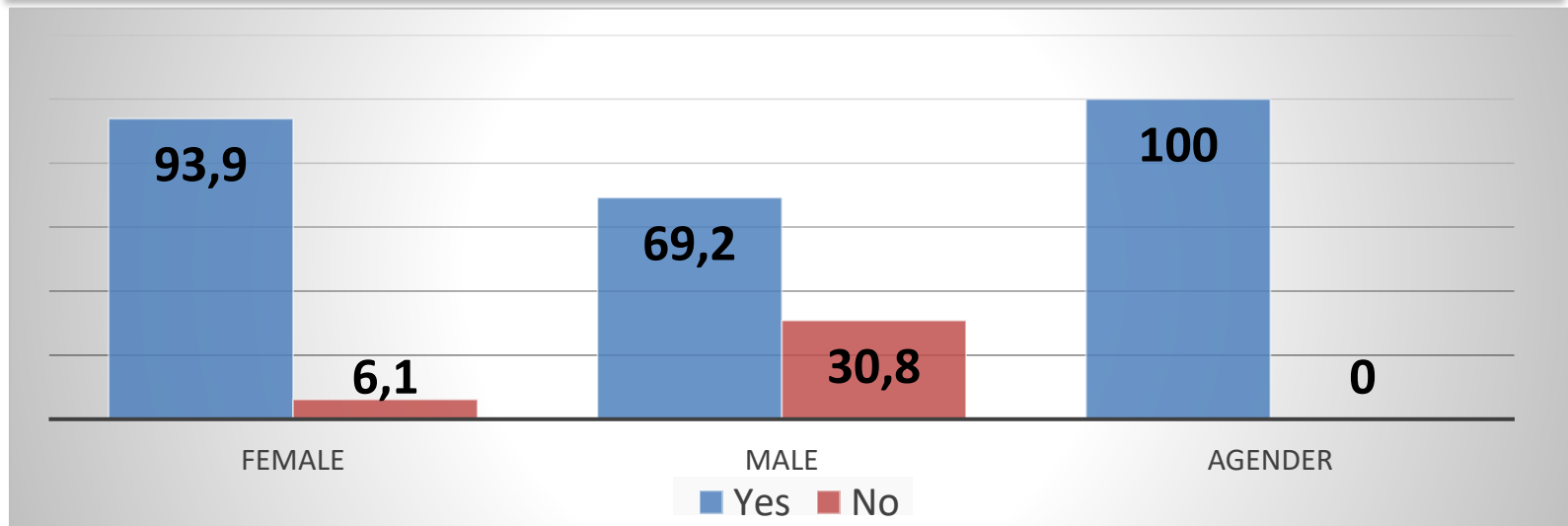
- Yes: 42 (= 87%)
- No: 6 (= 13%)



### 3. First results (English corpus only)

Do you consider women and men similarly in terms of “old age” and “aging”?:

- Yes: Female (93.9%); Male (69.2%); Agender (100%)
- No: Female (6.1%); Male (30.8%); Agender (0%)



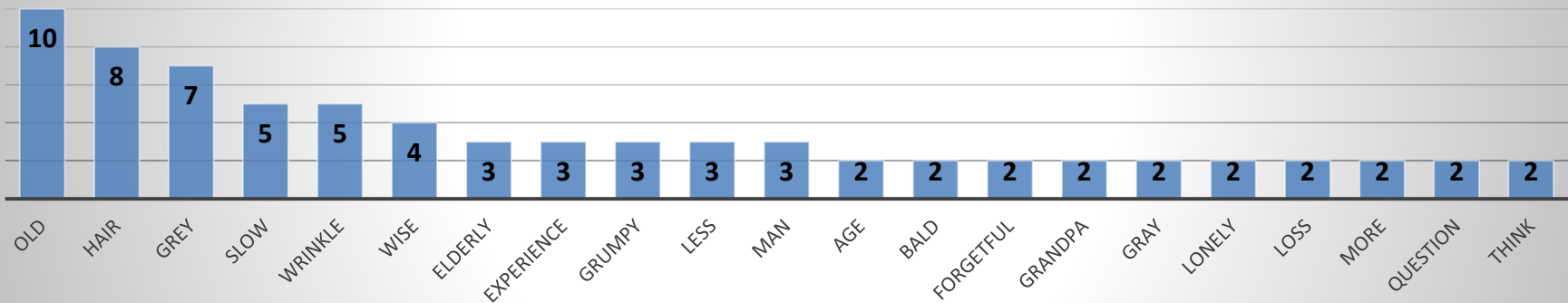
**Comment:** differences in terms of perception depending on the gender



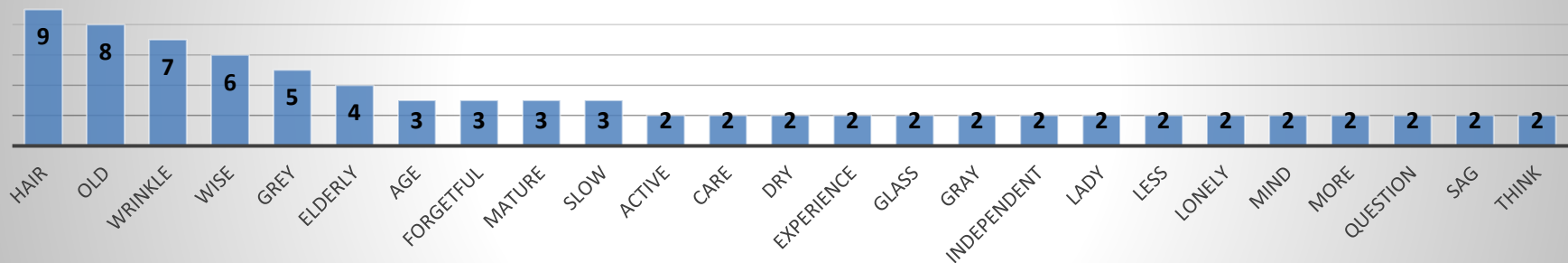


### 3. First results (English corpus only)

Most frequent lexemes for men (AntConc)



Most frequent lexemes for women (AntConc)





### 3. First results (English corpus only)

Key domain cloud

**Anatomy\_and\_physiology**

**Time:\_Old;\_grown-up**

Calm Colour\_and\_colour\_patterns Not\_part\_of\_a\_group People:\_Male Quantities:\_little Respected Selfish **Sensible** shape **Speed:\_Slow**  
Time:\_Old;\_grown-up Time:\_Old;\_grown-up Time:\_Old;\_grown-up Unmatched Violent/Angry Weak

Larger items are more significant.  
Underused items are shown in italics.  
Move your mouse over each item to show extra information in a tooltip.  
Click on a word to show the concordance.

Wmatrix

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#### Semantic tagging for men (Wmatrix 5)

Key domain cloud

**Anatomy\_and\_physiology**

**Not\_part\_of\_a\_group**

**Time:\_Old;\_grown-up**

People:\_Female

Personality\_traits

Respected

Sad

**Sensible**

**Shape**

Speed:\_Slow

**Time:\_Old;\_grown-up**

calm

Colour\_and\_colour\_patterns

Generous

Informal/Friendly

Interested/excited/energetic

No\_obligation\_or\_necessity

Larger items are more significant.  
Underused items are shown in italics.  
Move your mouse over each item to show extra information in a tooltip.  
Click on a word to show the concordance.

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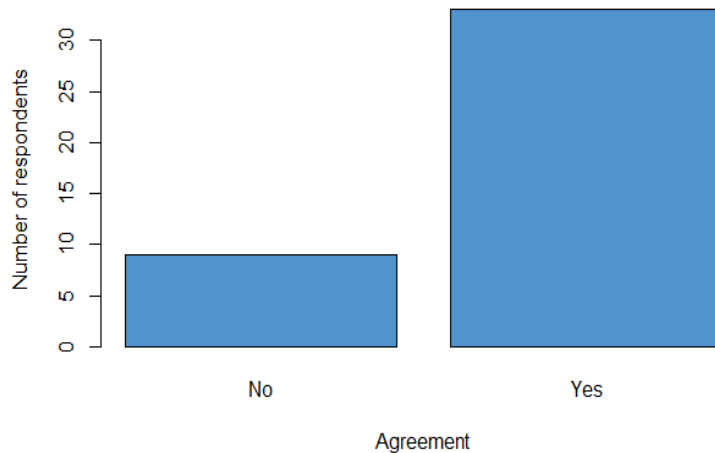
#### Semantic tagging for women (Wmatrix 5)

### 3. First results (English corpus only)

**6<sup>th</sup> type of question:** related to the differences between old/elderly vs. young

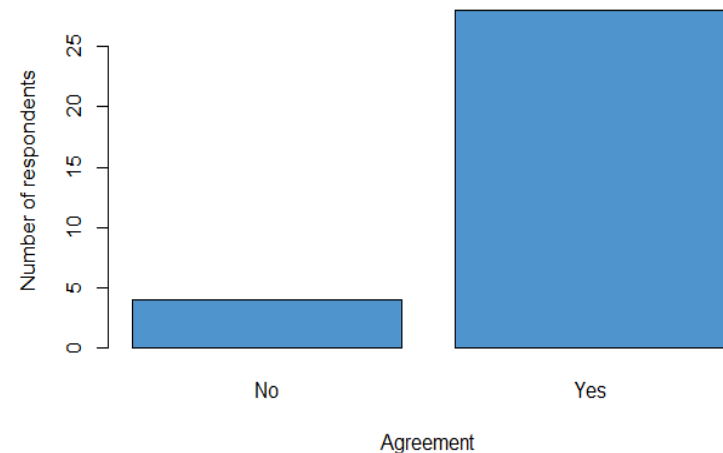
According to you, are there similarities between an “elderly” person and a “young” person?

- Yes: 33 (= 78.6%)
- No: 9 (= 21.4%)



According to you, are there similarities between an “old” person and a “young” person?:

- Yes: 28 (= 87.5%)
- No: 4 (= 12.5%)

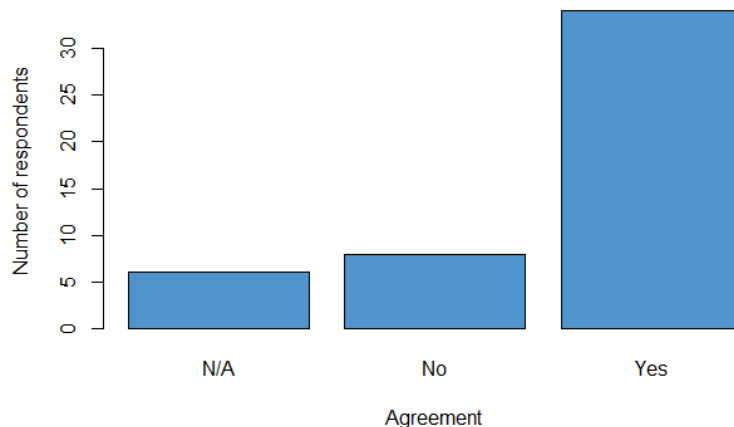


### 3. First results (English corpus only)

**7<sup>th</sup> type of question:** related to the associations speakers may have with old/elderly people (places, retirement, signs, etc.)

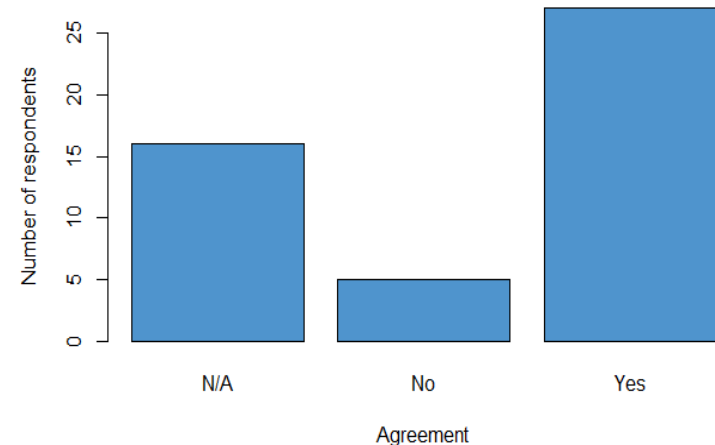
**Are there any places you associate with “elderly people”?:**

- Yes: 34 (= 81%)
- No: 8 (= 19%)



**Are there any places you associate with “old people”?:**

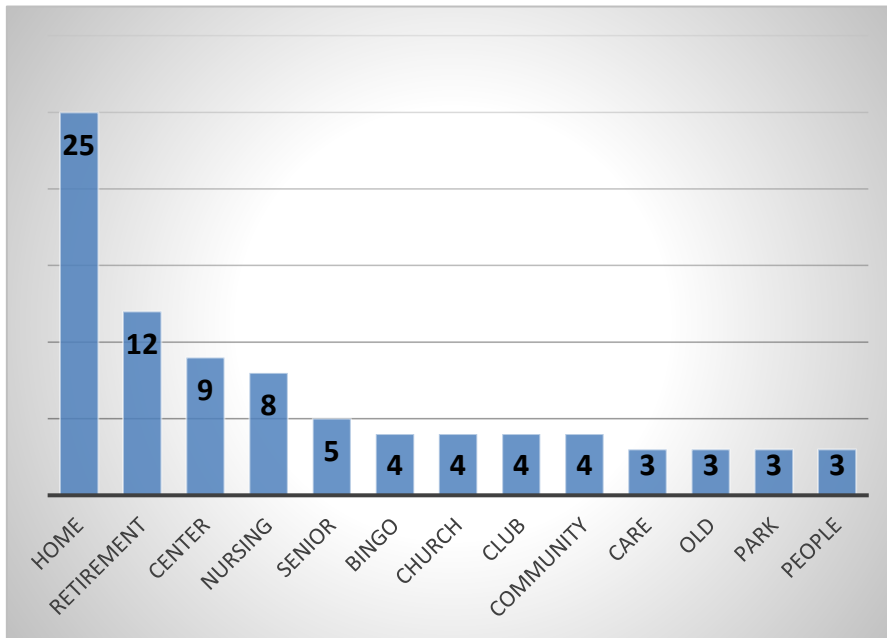
- Yes: 27 (= 84.4%)
- No: 5 (= 15.6%)



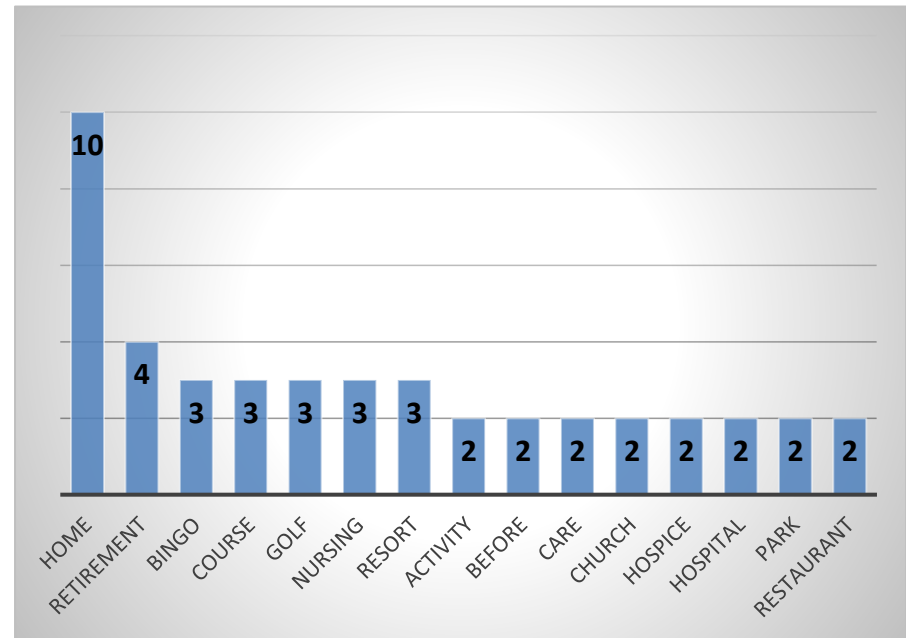


### 3. First results (English corpus only)

Examples of places associated to elderly people: most frequent lexemes (AntConc)



Examples of places associated to old people: most frequent lexemes (AntConc)

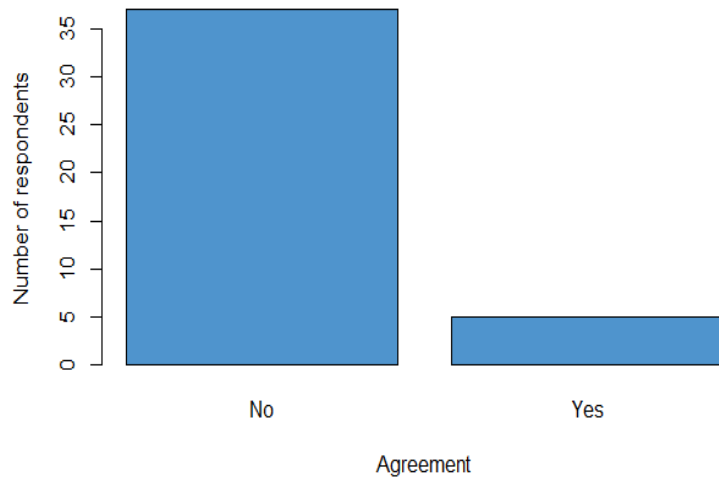


→ more or less the same places associate to old and elderly people

### 3. First results (English corpus only)

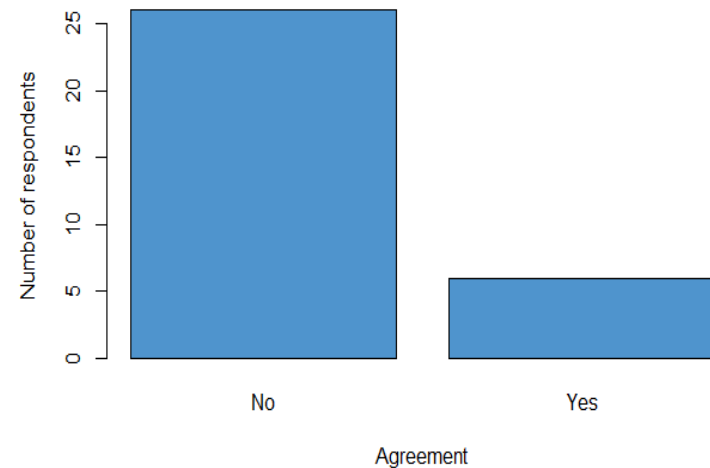
According to you, is “being retired” synonymous with “being an elderly person”?:

- No: 37 (= 88.1%)
- Yes: 5 (= 11.9%)



According to you, is “being retired” synonymous with “being an old person”?:

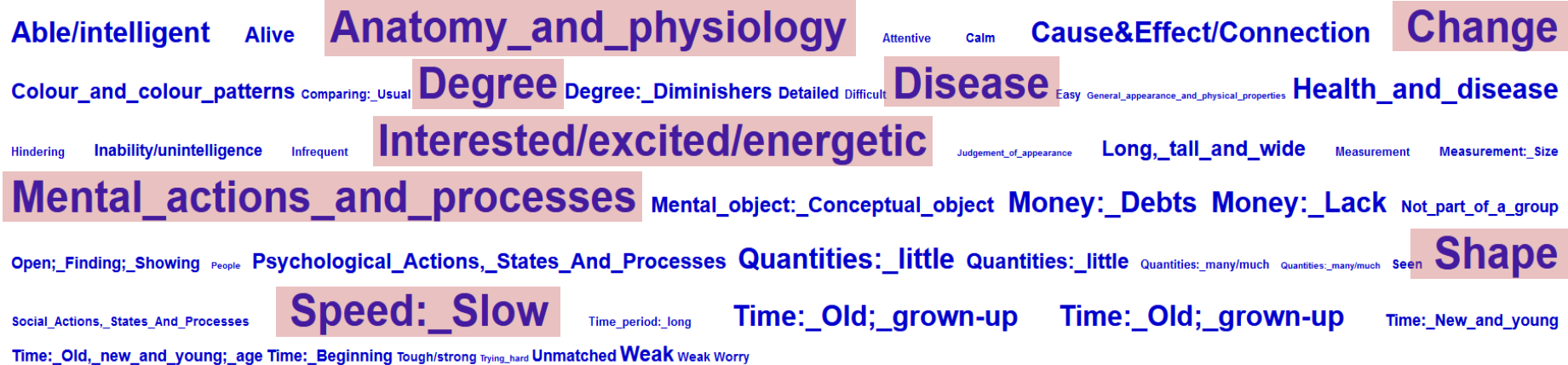
- No: 26 (= 81.25%)
- Yes: 6 (= 18.75%)



### 3. First results (English corpus only)

## Key domain cloud

Larger items are more significant.  
Underused items are shown in italics.  
Move your mouse over each item to show extra information in a tooltip.  
Click on a word to show the concordance.



Wmatrix

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### Semantic tagging for signs of old age and aging (Wmatrix 5)

→ old age and aging mostly defined as a **change**, a **degree** (slowness), **physical characteristics** (shape, anatomy and physiology) and **mental characteristics** (mental actions and processes; interested/excited/energetic), often linked to **diseases** → often **negative axiology**.

### 3. First results (English corpus only)

	22 occurrences.		Extend context
n Wisdom , grey hair , different	interests	than when we were young " Greying	1 More   Full
es and pains , reduced circle of	interests	. Getting more and more white hai	2 More   Full
nfirmities , losing one 's wider	interests	. " appearance - white hair - pos	3 More   Full
ir - posture ( being bent ) less	energy	feeling of loss of auttonomy " "	4 More   Full
t health deterioration , loss of	interests	. Increase in sedentary activitie	5 More   Full
or physical abilities " Fatigue	Impatience	with certain behaviours or activi	6 More   Full
senses deficient Loneliness " "	Impatience	Fatigue Lack of interest and curi	7 More   Full
s " " Impatience Fatigue Lack of	interest	and curiosity Physical deficienci	8 More   Full
nce Fatigue Lack of interest and	curiosity	Physical deficiencies Less intere	9 More   Full
osity Physical deficiencies Less	interest	in one 's appearance " " Signs of	10 More   Full
starting to form Grey hair Less	energy	Staying home " " Physical or cogn	11 More   Full
ying hair , declining health and	energy	Gradually getting Wrinkles , ache	12 More   Full
ying hair , declining health and	energy	over time " lack of mobility loss	13 More   Full
00 years old because they have a	lively	mind and are able to live alone i	14 More   Full
loose skin , eyes that no longer	sparkle	, round shoulders , stoop when wa	15 More   Full
her . " being less able to be as	active	as when younger physical differen	16 More   Full
in appearance and abilities Less	energy	" Need for , glasses , sticks and	17 More   Full
es . See previously . Diminished	energy	, physical decline , increased fr	18 More   Full
e , digestion , hearing ) , more	interest	in relaxing and pursuing personal	19 More   Full
n relaxing and pursuing personal	interests	than thinking about work or accom	20 More   Full
or sight problems . Not as much	energy	. getting older each day Slowness	21 More   Full
ns . Appreciation of novelty and	curiosity	. Wonder at the newness of things	22 More   Full

#### Negative semantic prosody for signs of old age and aging (*interested/excited/energetic*) (Wmatrix 5)

“Words or phrases are said to have **negative or positive semantic prosody** if they typically co-occur with units that have a negative or positive meaning.” (McEnery & Hardie 2012: 136)

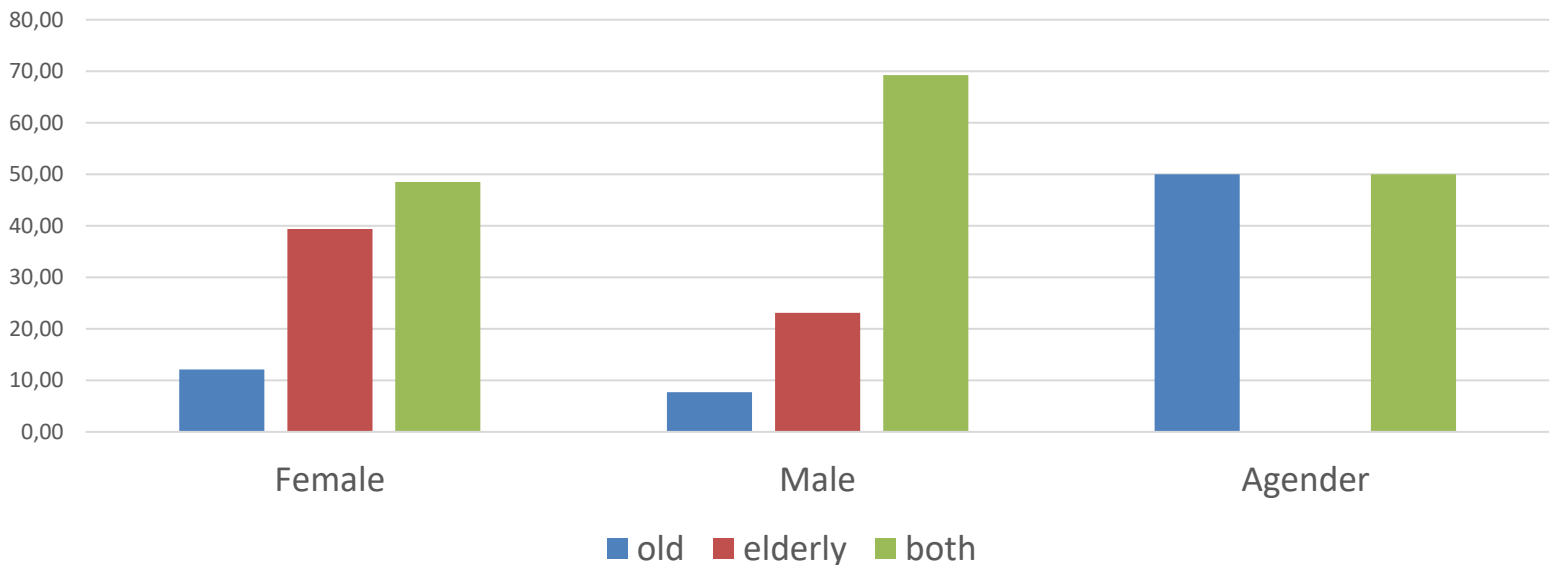




### 3. First results (English corpus only)

**Type of analysis:** bivariate analyses (combination of 2 variables and effects)

**Bivariate analysis:** gender X way of referring to people of a certain age

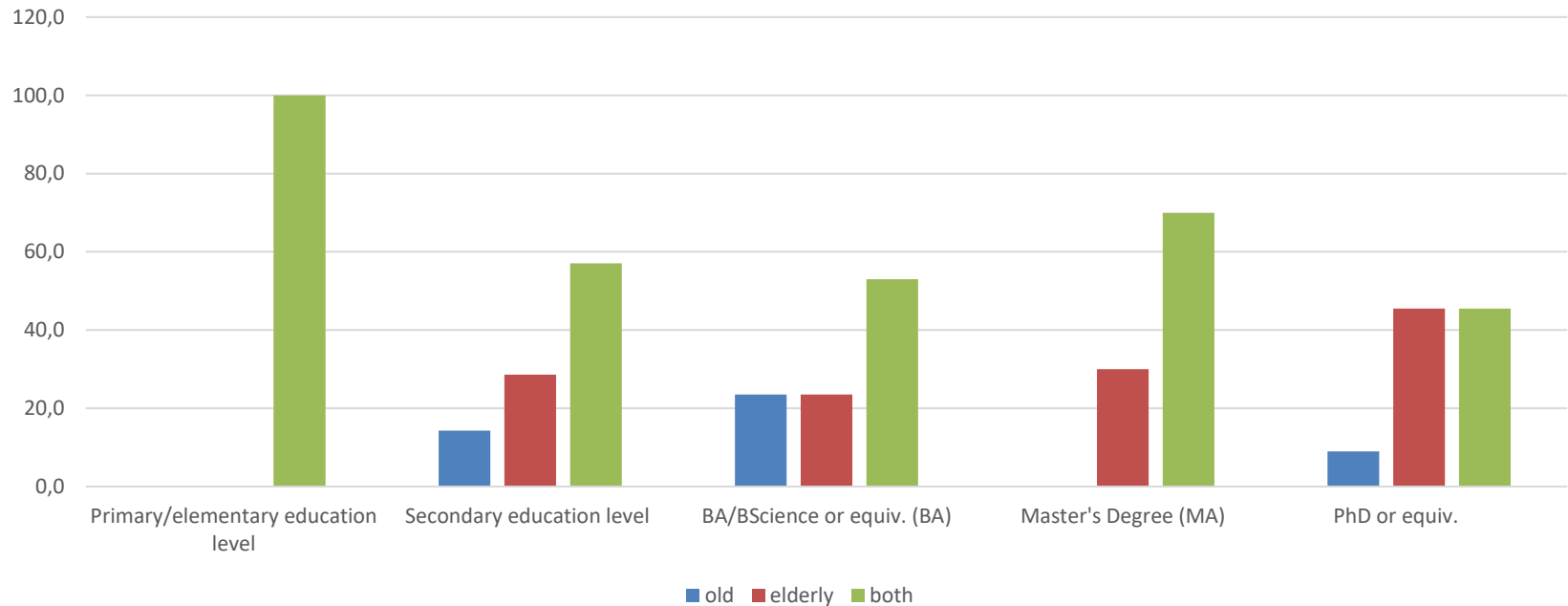


Effect of gender on the way of referring to people of a certain age?  
→ Not sure...



### 3. First results (English corpus only)

**Bivariate analysis:** education level X way of referring to people of a certain age



Effect of education on the way of referring to people of a certain age?  
→ Not sure...



## 4. Concluding remarks and further research

### Temporary concluding remarks:

- The results presented will be completed as the survey completion progresses (nothing set in stone);
- Further research will be conducted on the possible links between sociolinguistic variables and people's perceptions and representations of old age and aging;
- Observations and analyses will be backed up with statistics.



## 4. Concluding remarks and further research

### Limits:

- Very small sample → larger sample of respondents needed to make sure tendencies are not mere coincidence;
- Over-representation of academia-related people (network) → need to diversify the population surveyed;
- [English version] Not enough data on different varieties of English to answer the following question: *do perceptions and representations of old age and aging vary across varieties of English?*
- Multilingual/cultural analyses to conduct to see if different representations of old age and aging depending on language and culture;
- Etc.



**Thank you for your attention**



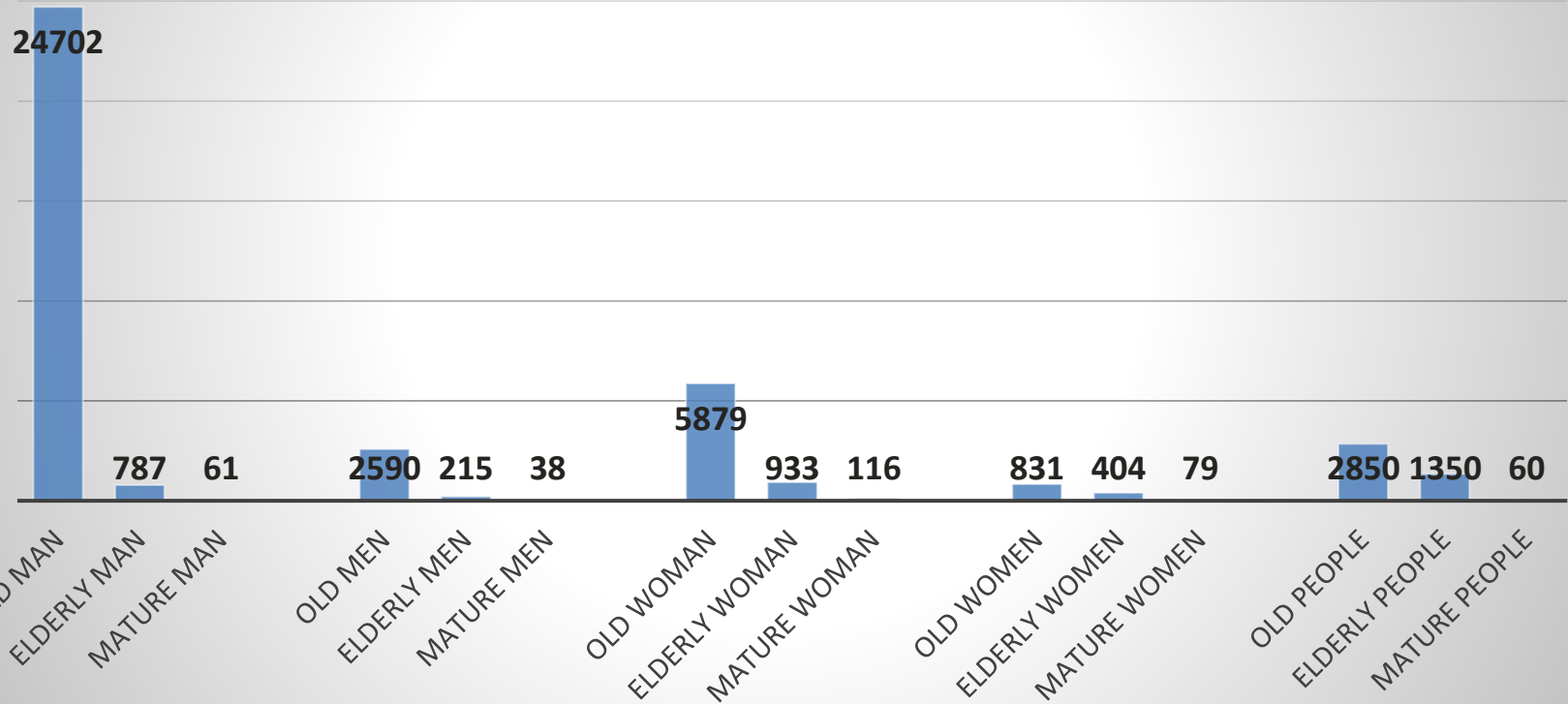
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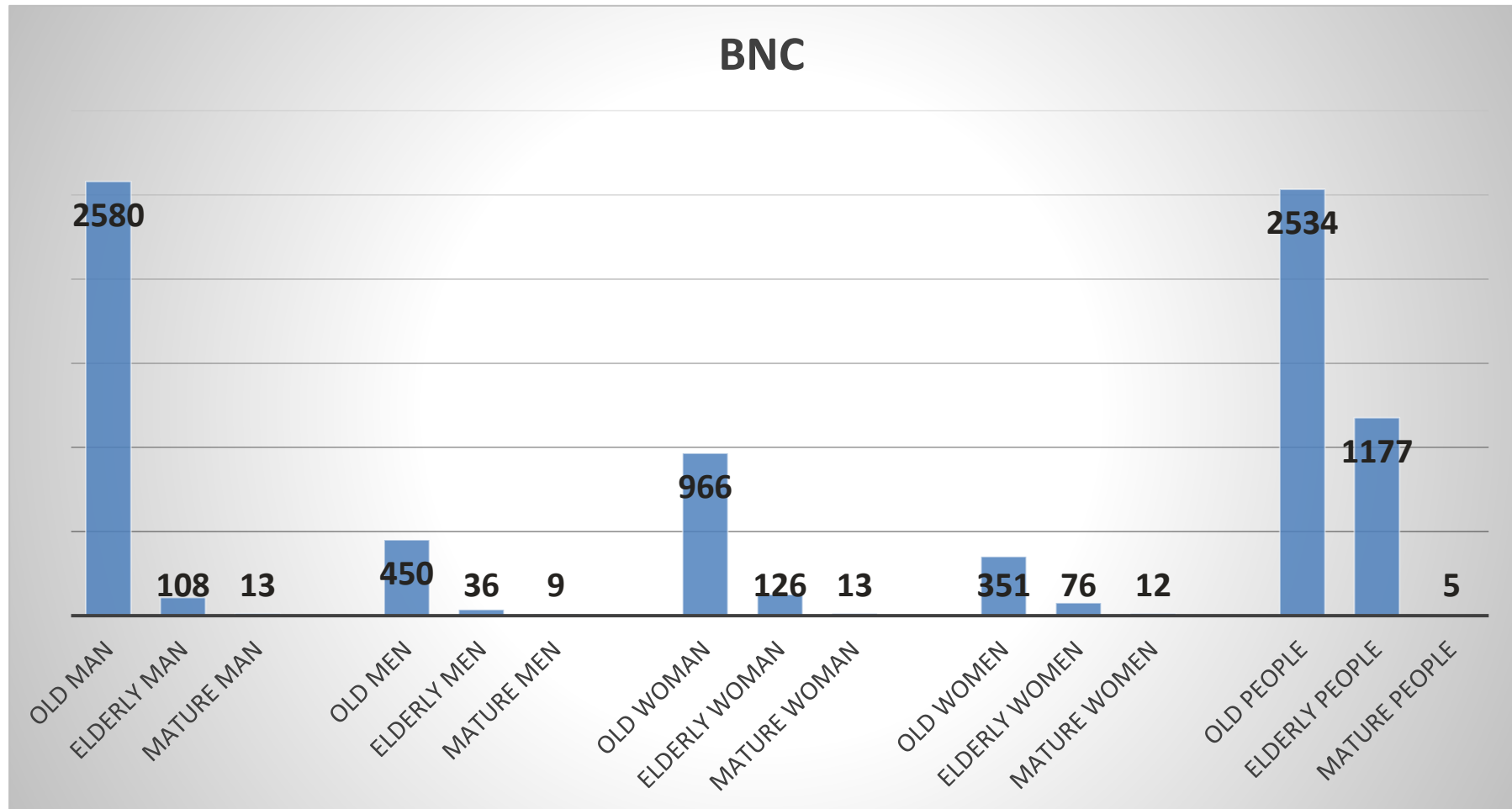
## APPENDIX: OLD vs.ELDERLY

### COCA





## APPENDIX: OLD vs.ELDERLY





## APPENDIX: OLD vs. ELDERLY

### Out of the 48 respondents:

Average age (*According to you, from what age is a person considered “elderly”?*): 71.27

Average age (*According to you, from what age is a person considered “old”?*): 66.03

### Out of the 26 respondents that use both “elderly” and “old”:

Average age (*According to you, from what age is a person considered “elderly”?*): 70.19

Average age (*According to you, from what age is a person considered “old”?*): 66.27

Difference between “old” and “elderly” just a question of age difference? of politeness?

→ Not really

## APPENDIX: OLD vs. ELDERLY

- (1) In my family and community, someone is usually **considered** an “elder” or “elderly” when they are around 45-50 years old (and they probably have grandchildren). **However, maturity and social roles may also influence how we look at them.** For example, if someone is very mature for their age, has a lot of responsibility, and people go to them for “elderly advice”, we may **consider** them like an elder.
- (2) I’m my opinion, **age is only one factor**. I **consider** someone who is 50 years or older to be “old”. The other factor involves maturity and physical and psychological factors.
- (3) I **consider** a person “old” with respect to my age. So when I was 16, I **considered** 30 to be old. Today that I’m 37, I think of 37 as rather middle-aged, and an old person would be about 80! I think this question also has to do with cultural acceptance of age. When I was in India, a person became “old” at about 55 and I suppose that would have been the case for me too. Since I’m in France, and the mortality rate is way lower here than in India, I’m thinking in terms of 80yrs. I’d be happy to discuss this with you if you’re conducting interviews!
- (4) **It’s not an easy question, nor is it universal.** A lot has to do with the person’s way of presenting themselves. My sister is 77 and I don't find her elderly - but maybe old. **Curious, as the difference is very nuanced and unclear.**

## APPENDIX: OLD vs. ELDERLY

From what age is a person considered “elderly” / “old”?

