Basic information

- **10-month post-doc position: Cognitive Science approaches to reference to objects in visual data**. Universitat Pompeu Fabra, Barcelona, Spain.
- Funding references:
  - ERC Starting Grant 715154 AMORE: A distributional MOdel of Reference to Entities (www.upf.edu/web/amore). Id.: 715154, ERC-2016-StG.
  - AL10617 - AGAUR. Id.: 2017 SGR 1575.

POSITION DESCRIPTION

Humans can communicate in part because they share the way they refer to objects. For instance, suppose I see my neighbor's dog, a chihuahua, running in the park: do I refer to it as "the animal", or "the dog", or "the chihuahua"? Or maybe "the chihuahua that's running towards the tree", or "the small dog on the left"? For any given object, there is a large number of different referring expressions that we could choose to use; and yet there are regularities in how people choose, and interpret, such referring expressions, as otherwise we would not be able to communicate. Despite substantial work on this topic in Computational Linguistics, Linguistics, and Cognitive Science, it is still far from clear how reference works.

We seek a post-doctoral researcher to lead the analysis of data regarding reference to objects in visual data (images) using Data Science methods as well as classical Cognitive Science methods. In particular, the first goal is to analyze the data in the ManyNames dataset (Silberer et al 2020a, 2020b), gathered within the AMORE project. This dataset contains names ("dog", "chihuahua", "animal") for each of 25000 objects in natural images, obtained via crowdsourcing, with 36 different subjects providing a name for each object. The primary questions are 1) what kind of regularities/variation do we find in different names for the same object?, 2) how do object properties, on the one hand, and contextual information, on the other, affect the choice of name? The second goal is to work with the other members of the AMORE team in collecting and analyzing referring expressions for these images ("the small dog").

References:

- Silberer, C., S. Zarrieß, M. Westera, G. Boleda. 2020a. Humans Meet Models on Object Naming: A New Dataset and Analysis. In Proceedings of COLING 2020, 1893-1905.
- Silberer, C., S. Zarrieß, G. Boleda. 2020b. Object Naming in Language and Vision: A Survey and a New Dataset. In Proceedings of LREC 2020, 5792-5801.

RESEARCH ENVIRONMENT

The research will be carried out within the AMORE project and in the COLT research group (https://www.upf.edu/web/colt). COLT is a young, dynamic, cohesive group currently consisting of 12 senior, post-doc, and PhD researchers whose interests are related to the research topic associated with this position. Its premises are in the Communication Campus of UPF (www.upf.edu/campus/en/comunicacio), with a lively ecosystem of researchers working on Linguistics, Computer Science, and Cognitive Science, and specifically on topics related to the AMORE project.

Universitat Pompeu Fabra is a small, research-oriented, highly international institution (www.upf.edu), consistently ranked top in research among Spanish universities and placed 15th worldwide in the Times Higher Education ranking "150 under 50".

Barcelona is a unique city, with a Mediterranean and cosmopolitan culture, and very livable (www.upf.edu/barcelona/en).

APPLICATION

Applicants should submit via email to Ms. Mar Schoenenberger (mar.schoenenberger AT upf.edu) a single pdf file with:

- CV (max. 2 pages), including name and e-mail address of two academic referees;
- a cover letter (max. 1 page) explaining why you are interested in this position and how your profile fits the project.

We aim at building a diverse team; all applications are welcome, *especially those of female researchers* and members of other underrepresented collectives. Informal inquiries are welcome (gemma.boleda AT upf.edu).

DATES

- Starting date: February 2021
- Gross salary: 2.715 €
- Researcher Profile: Recognised Researcher (R2)
- Research field: Cognitive Science / Psycholinguistics
- Type of Contract: Temporary
- Job status: Full-time
- Hours per week: 37.5
- Application Deadline: 29/01/2021

Requirements

- Required Education Level: PhD
- Main research field: Cognitive Science / Psycholinguistics / Data Science
- Required Languages:
  - Language: English
  - Level: excellent
- Research field: Cognitive Science / Psycholinguistics / Data Science
- Years of research experience: 4 – 10 years

Additional info

- Benefits: Social Security and health insurance provided to all workers by the Spanish state.
- Eligibility criteria: Excellence and fit to the project.
- Selection process: From all the applications received by the deadline, we will make a shortlist followed by a round of interviews and, if needed, ask for reference letters. The decision will be made based on the application, the interview, and possibly the reference letters.