The effect of language on gender salience

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A large number of studies show that the way language encodes information affects speakers' cognitive processes, such as memory (e.g., Sakarias & Flecken, 2019; Tajima & Duffield, 2013). Languages also vary in the amount of information they require speakers to convey. For example, whenever English-speakers talk about count objects, they need to convey whether there is 1 vs >1 item (e.g., a cat vs. cats) while Japanese-speakers do not have to make such a distinction - they can use the word 'cat' when referring to one cat or multiple cats. This linguistic difference has been linked to English-speakers having a better recall of plurality information than Japanese-speakers from photos seen (Kirjavainen, Kite & Piasecki, 2020). Similarly, some languages such as German and Spanish need to include information about grammatical gender (e.g., masculine, feminine) when referring to objects/entities (including inanimate entities), but languages like English do not convey this information. Corresponding research suggests that grammatical gender markings affect perception of objects as more feminine vs. more masculine in speakers of languages that require grammatical gender (e.g., Boroditsky, Schmidt & Phillips, 2002).

Even though there is a large body of research on the effect of grammatical gender marking on cognition, the impact of linguistic gender identity markings on cognition is less studied. For example, Polish contains heavy gender marking and requires speakers to indicate the gender of the human referred to in surnames and professions (e.g., *gardener* vs. *'gardeneress'*) and in most parts of speech, including pronouns (*she* vs. *he*). English contains a medium amount of gender marking as it requires speakers to use gendered third person singular pronouns (*she* vs. *he*, or sometimes *they*) when referring to humans. Finnish has no gender marking on nouns or pronouns. Thus, these three languages provide an ideal test case for investigation into the effect of language on gender cognition leading to the following prediction: if language impacts cognition, gender identity information should be most salient to Polish speakers and least salient to Finnish speakers.

We report a pre-registered online experiment that investigated memory accuracy differences for gender information in photos seen between monolingual Polish, English and Finnish 18-30-year-olds. The participants first saw 140 photos consisting of target photos, control photos and filler photos on a computer screen after which they were asked forced-choice questions about the photos – 50 questions on gender information (see example 1), 20 control human questions (2) and control non-human questions (3).

(1) *What did you see? A male sprinter vs. A female sprinter*
(2) *What did you see? A surfer lying down vs. a surfer standing*
(3) *What did you see? A round clock vs. a square clock*

Contrary to our hypotheses, there were no differences in gender memory accuracy for the English vs Finnish participants. Our data collection is still ongoing for Polish, but preliminary descriptive results indicate some differences between Polish and English/Finnish participants. The results are discussed in the context of the effect of language on the perception of people as simply 'people' or as males/females.

References

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