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Priming the Interpretation of Noun Compounds: Evidence Against Relation-Based Models

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Charlie Weasley - She or He?

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Natural versus Grammatical Gender

Adult L2 learners often encounter difficulties when assigning gender to unknown nouns, especially when their L1 lacks grammatical gender (Francheschina, 2001). Given that there is no proper understood rule, natural gender of referents can be a promising cue for choosing the correct article: Larrañaga (2005) found that English L2 learners of Spanish chose more often the correct article for unknown nouns when the natural gender of a pictured referent matched with the grammatical gender of the corresponding noun than without that correlation.

The present study investigated whether or not this is a specific strategy for language learning. Instead of having to allocate the articles, participants rated the natural gender of name picture pairs for unknown characters of the Harry Potter story. Categorizing the natural gender of persons becomes problematic either when available sources of information are not relevant enough or when available sources provide conflicting evidence as for combination of boys' shots with girls' names or opposite.

Generalizing the results of Larrañaga (2005) to the natural gender task, first, participants should integrate both verbal and pictorial information in order to judge young magicians and witches. Therefore, they should rate convergent shot-name pairs more often as male and female respectively than conflicting combinations. Secondly, they should prefer systematically either verbal or pictorial information for conflicting combinations. And thirdly, they should demonstrate a tendency for judging persons more often as male than as female.

Method

Participants 179 participants (49% male, $M = 24$ years, $SE = 5.4$ years) participated in this web experiment (www.tu-chemnitz.de/project/elearning/Potter_engl). 26 % of participants revealed themselves as Harry Potter fans. All of them were familiar with main characters of that story but not with its secondary characters.

Material and Procedure Combinations of 24 non frequent male and female names and 72 shots of male, female and not identifiable secondary characters of the Harry Potter story were varied between participants as stimuli for this study. In addition, 18 main characters were shown as fillers

resulting in 42 presentations per participant. Ratings and reaction times were collected as dependent variables.

Participants first answered some general questions about themselves and gave their first impression on the gender of characters out of the Harry Potter story afterwards.

Results

For analysis of data, "male" answers were coded as 1 and "female" answers as 0. In the following, percentages per character are reported. As expected, participants rated converging name-shot pairs more often as male ($M = 96$ %, $SE = 3.4$ %) or female ($M = 2$ %, $SE = 7.3$ %) respectively than non-matching pairs ($M = 63$ %, $SE = 5.6$ %), $F(2, 44) = 7.19$, $p < .001$, $\eta^2 = .75$. In addition, participants preferred systematically the "male" answer resulting in more "male" ratings for not identifiable shots combined with male names ($M = 90$ %, $SE = 8.0$ %) than "female" ratings for not identifiable shots combined with female names ($M = 33$ %, $SE = 7.3$ %)(see also Francheschina, 2001). For non-convergent pairs, pictorial information was systematically favored over verbal information. That effect was stronger for pictured male characters ($M = 81$ %, $SE = 3.2$ %) than for pictured female counterparts ($M = 45$ %, $SE = 7.9$ %).

Discussion

Corresponding to Larrañaga's (2005) results, who showed that semantic cues affect the results in a gender allocation task, the present participants used both verbal and pictorial sources of information for judging the natural gender of persons. In addition, they demonstrated a strong preference for one of these sources when judging non-convergent combinations, opting primarily for "male". Accordingly a corresponding ACT-R model fitted both data sets by exchanging only one rule for preferring one of the given sources.

Altogether, these results support the claim that adult L2 learners resort to language unspecific strategies for language production in the absence of relevant linguistic cues.

References

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