

## Assessing scalar meaning: a first exploratory study on some Italian focus particles

Well-established analyses of *even* claim that the contribution of this scalar-additive operator to the sentences in which it appears is of both an additive and a scalar inference [1], [2], [3]. Sentences with scalar-additive particles not only entail the corresponding sentences without the particle. They also imply that at least one among the associate's [4] focus alternatives satisfies the predicate under consideration, and that the alternative(s) at issue are somewhat ordered [5]. When *even* appears under negation, this ordering gets reversed. As far as Italian is concerned, the perfect correspondent of *even* is held to be *persino* [6]. However, other particles can trigger the additive and scalar inferences in a similar way. Among these, *pure* and *anche*, and their negative counterparts *neppure* and *neanche* [7], [8], [9], [10]. At present, little experimental work has been carried out on Italian focus operators. To our knowledge, only one study has been conducted on the processing of *persino* [11]. Hence, it is yet to be determined whether the strength of the scalar inference may remain constant across different particles. Based on the existing literature, there is reason to believe that *persino* might carry a stronger scalar inference compared to other operators – *anche* and *pure* being compatible with, but not committed to, a scalar interpretation.

We thus designed a multiple-choice cloze test targeting *persino-persino...non*, *pure-neppure* and *anche-neanche*. We first presented participants with a drawing and a short story and then asked them to fill in a concluding sentence choosing one of these six particles provided as alternatives (Figure 1). The pictures and stories were ideated to make participants build some expectations about which of the three characters presented was the most or least likely to carry out the action described – an action which could eventually be either successfully accomplished or failed by all. In this way, we aimed at observing whether the rate of particle selection may vary depending on which character the concluding sentence focusses on and, possibly, on the outcome of the stories. Via within-subject manipulation of Particle Polarity (positive-negative) and Focussed Character (likely-middle), the experiment indeed consisted of 80 (48 experimental) trials which could appear under four possible conditions.

The responses of 89 monolingual Italian adults (43 females; age  $M=32$ ) were analysed via multinomial logistic regressions on Particle Type, with Polarity and Character as fixed effects and Participant as random intercept. The model returned a significant interaction between Polarity and Character ( $\beta=1.23$ ,  $p<.001$ ). The most influencing effect was that of Character ( $\beta=-3.32$ ,  $p<.001$ ), even though the effect of Polarity was significant, too ( $\beta=-0.38$ ,  $p<.001$ ). As shown in Figure 2, *persino-persino...non* was the most selected alternative in both positive and negative settings with focus on the likely character (78.3% and 48.3%, respectively), which seems to indicate that this is the alternative that participants perceived as carrying the strongest scalar inference among the ones provided. Interestingly, though, the choice rate of *persino...non* in negative settings was lower than that of *persino* in positive ones. *Pure-neppure* was rather chosen more in negative (27.3%) than in positive frameworks (3.1%) in association with the likely character. In negative situations, it was chosen at an almost equal rate when coupled with the likely (27.3%) and the middle character (26.5%), and its selection rate on the likely was almost on a par with that of *neanche* (24.4%). All this seems to indicate that *pure-neppure* was understood to bring a somewhat weaker scalar inference than *persino-persino...non*. Last, *anche-neanche* was selected more with the middle than with the likely character, be it in positive (82.3%) or negative contexts (68.2%), which suggests that this might have been felt as the “less scalar” among the alternatives provided.

All in all, these data not only seem to point out that different Italian scalar-additive operators are associated with different scalar force. They also seem to imply that, despite appearances, the positive-negative pairs selected are not the mirror image of each other – a fact certainly worth scrutinizing in further detail.

## Figures

Figure 1 - An example of experimental trial

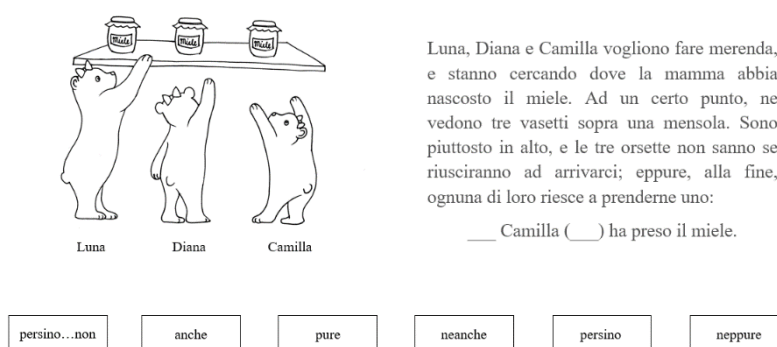
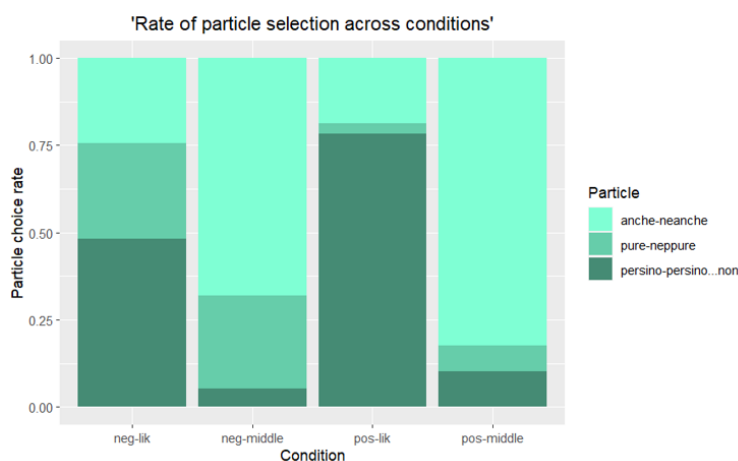


Figure 2 - Proportion of particle selection across conditions



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