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MORE THAN 100 IMPLICATURES

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Modified numerals have been claimed not to trigger scalar implicatures. For example, “Fred has *more than 3 children*” does not seem to implicate that Fred does not have more than 4 children (i.e., that he has exactly 4). However, we provide experimental evidence that modified numerals do trigger implicatures, and show that these implicatures depend on at least two influences: the granularity level of the numeral scale and the discourse salience of the modified numeral.

GRANULARITY. In the first experiment, conducted online via Amazon MTurk, we demonstrate that the interpretation of modified numerals is constrained by granularity-based inferences. The rounder the numeral n (100 rounder than 110 rounder than 93), the wider the range of values participants estimated for *more than n* and *at least n* , indicating implicatures were calculated based on the speaker’s choice not to use the next higher value on a scale of the appropriate granularity.

SALIENCE. In further paper/pencil and online experiments, we show that contextual salience of the numeral tends to cancel scalar implicatures. When the numeral n was primed in the preceding discourse, participants assigned a wider range of interpretations to the modified numeral than when n was not primed, indicating contextual activation weakens the tendency to draw inferences based on scalar alternatives.

CONCLUSION. We conclude that scalar implicatures do occur with modified numerals, but can be detected only when factors including granularity and salience are considered. We discuss these findings in relation to alternate theories of scalar implicature.