Is each type of strengthening explained by implicature or neglect-zero?

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I will present two experiments testing similarities and differences among a selected set of interpretive strengthenings, in particular *scalar implicatures*, *distributivity inferences*, and strengthening via the exclusion of *empty scope* or *empty restrictor* sets, as illustrated in (1)–(4):

(1) Some of the squares are white.
     ↝ There are non-white squares.

(2) Each of the squares is either black or white.
     ↝ There are black and white squares.

(3) Less than three squares are black.
     ↝ There are black squares.

(4) [(1)−(3)]
     ↝ There are squares.

These strengthenings are theoretically significant because different accounts have been proposed for them, differing both in their fundamental assumptions and in their empirical coverage. *Implicature accounts*, in the broadest sense, rely on a powerful mechanism involving the negation of alternatives and can explain all four types of strengthening. In contrast, *neglect-zero accounts* assume that empty structures are ignored in interpretation due to a general cognitive bias. They capture the cases in (2)–(4). Finally, classical *presupposition accounts* apply only to (4). These approaches also differ in their *processing predictions*. I will evaluate these predictions using two experimental paradigms: a question-answering task, capturing processing profiles in terms of response behavior and reaction times, and a priming experiment, testing for a direct causal link between the underlying computations. I conclude by discussing theoretical implications and directions for future research.