

## Abstract

In the present research, we introduce symbolic sequence effects---the consequences of whether the sequence of the initial letters of a pair of words (e.g., a word representing a putative cause and another word representing a putative effect) conforms to the structure of symbolic sequences that are stored in the mind as overlearned natural language traces (hereafter, “natural sequence”). We synthesize insights from psychophysics as well as numerical and natural language symbolic representations to demonstrate that the mere sequence of symbols contained in a statement influences judgments of truth. Across five studies using both subliminal and supraliminal manipulations to rule out demand effects, we showed that when a statement is structured in a way that is consistent with the natural sequence of symbols (“x \_\_\_ causes y \_\_\_” rather than “y \_\_\_ causes x \_\_\_”), people experience feelings of an unexpectedly orderly flow, which in turn will influence judgments of truth. This occurs despite the inability of participants to attribute the source of the feelings. Our results suggest that carefully designed medical claims, government warnings, or newspaper headlines are likely to benefit from this natural sequencing. These findings provide important contributions to the literatures on processing fluency, judgments of truth and beauty, and human cognition.

Keywords: symbolic sequences, judgments of truth, causal judgment, processing fluency, beauty