
Rhyme as reason: Experimental evidence and implications for creative sentence production in verbal art

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Rhyme is a euphonic ornament of verbal art and song. Perhaps counterintuitively, the sound correspondence of rhyme may have quasi-semantic effects, e.g., making statements appear more accurate and convincing. Such rhyme-as-reason effects have been related to processing events during sentence comprehension. Specifically, it has been argued that “rhyme [...] affords statements an enhancement in processing fluency that can be misattributed to heightened conviction about their truthfulness” (McGlone & Tofighbakhsh, 2000). Here, we report evidence from a study of verse comprehension in Dutch that lends support to the key claim of the *fluency-misattribution* account: that rhyme facilitation during online sentence comprehension is systematically related to rhyme-induced semantic effects; we discuss the implications of our findings for creative sentence production and composition.

Summary: Combining eye-tracking during reading with intuitive semantic judgments allowed us to test the hypotheses that 1) rhyme leads comprehenders to perceive a “deeper meaning” in statements, that 2) rhyme facilitates word processing, and that 3) rhyme-induced facilitation predicts rhyme-dependent meaningfulness effects. We selected 48 couplets of Dutch verse – typically corresponding to a single sentence – and created non-rhyming versions by replacing the first rhyme word (pre-rhyme) with a synonym as in example (1).

- (1) wat niemand kan **weten/kennen** || kan ik niet **meten**
what nobody can know can I not measure
'I cannot measure what nobody can know'

Participants ($n=54$) read each couplet in either the original or the modified version while their eye movements were recorded; they rated the aesthetic appeal, comprehensibility, and perceived meaningfulness of each couplet on a quasi-continuous scale (0-100). Linear mixed-effects regression analyses of ratings and of several gaze-time measures confirmed that rhyming couplets were perceived as more meaningful than non-rhyming versions (rhyme-as-reason effect; H1; $p = .019$) but failed to reveal a general facilitation effect of rhyme (fluency effect; H2; all $ps > .18$). Crucially, results of multiple linear regression showed that rhyme-induced differences in total reading times of critical rhyme words partly accounted ($\Delta R^2 = 0.11$) for the observed meaningfulness effect of rhyme (H3; $p = .023$).

References: • McGlone, M. S., & Tofighbakhsh, J. (2000). Birds of a feather flock conjointly (?): Rhyme as reason in aphorisms. *Psychological Science*, 11(5), 424–428.