

## The Keats heuristic: Rhyme as reason in aphorism interpretation<sup>☆</sup>

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### Abstract

Do people distinguish between the form and propositional content of a statement when evaluating its truthfulness? We asked people to judge the comprehensibility and ostensible accuracy of unfamiliar aphorisms presented in their original rhyming form (e.g., *Woes unite foes*) or a semantically equivalent non-rhyming form (*Woes unite enemies*). Although the different versions were perceived as equally comprehensible, the rhyming versions were perceived as more accurate. This 'rhyme as reason' effect suggests that in certain circumstances, people may base their judgments of a statement's truth value in part on its aesthetic qualities. Our results are consistent with models of persuasion which assume that people rely on heuristic cues to evaluate messages when they lack the evidence and/or motivation to scrutinize message content (e.g., Eagly and Chaiken, 1993). © 1999 Published by Elsevier Science B.V. All rights reserved.

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### 1. Introduction

Aphorisms are succinct sayings that offer advice and observations about universal human concerns such as happiness (e.g., *Better to be happy than wise*), health (*An apple a day keeps the doctor away*), love (*Love laughs at locksmiths*), and money (*Great spenders are bad lenders*). When used in text or conversation, they function primarily as rhetorical devices by asserting a claim in a persuasive way (Goodwin and Wenzel, 1979; Mieder, 1990). The propositional content, or meaning, of an aphorism is undoubtedly a principal determinant of its persuasive force: The most

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persuasive aphorisms are those whose propositional content we perceive as true. Semanticists have traditionally characterized the truth of a proposition in terms of ‘truth conditions’ that guarantee referential validity when satisfied (e.g., Dowty et al., 1981). However, the notorious vagueness of aphorisms makes specification of their truth conditions especially difficult. For example, what conditions must be satisfied for the statement *Woes unite foes* to be true? Do all forms of negative affect constitute *woes*? Does *unite* denote a genuine act of camaraderie, or does a mere cease in hostilities count? Does *foes* apply only to people who are moderately peeved at one another, or are sworn blood adversaries also covered? If the persuasive force of an aphorism depended critically on the clarity of its truth conditions, then we should find it surprising that people invest any belief in such statements.

However, as many theorists have suggested, the very act of comprehending an aphorism (or any other assertion) entails at least a short-term investment of belief in its propositional content. Noting the difficulty in defining ‘comprehension’ without reference to the veracity of the proposition to be comprehended, Gilbert (1991: 114) argued that “to generate a proposition’s meaning is to consider it so”. Rips and Marcus (1977: 192) endorsed a similar claim when they characterized sentence comprehension as involving the creation of “a temporary context in which the sentence is true”. On this view, understanding an aphorism such as *Woes unite foes* might involve contemplating a scenario that the sentence describes – e.g., two feuding brothers who come together to bury their deceased mother. If this scenario does not conflict with our personal experience and other relevant evidence, we should deem the aphorism plausible, if not unimpeachable. In the absence of such evidence (and/or the motivation to seek out evidence), the degree of plausibility we confer on the statement may be based on other factors. One powerful factor is the presumed identity of the aphorist. Attributing a statement to a highly credible or prestigious source can compel people to endorse it, particularly when they lack the knowledge to evaluate the statement’s underlying assumptions (Asch, 1952; Saadi and Farnsworth, 1934). Thus, one might be more inclined to accept the claim that *Woes unite foes* when it is attributed to a conflict resolution expert (highly credible given the statement’s theme) than when it is attributed to a writer of ad copy. However, since aphorisms are rarely attributed to a source when mentioned in text or conversation, ‘prestige suggestion’ of this sort occurs infrequently (Brown, 1956).

A second factor that can contribute to an aphorism’s persuasive force is its familiarity among members of a particular social group or culture (Higbee and Millard, 1983). For example, consider the well-worn observation that *Opposites attract*. This aphorism is not only highly familiar to American college students, but is also judged by these students to be a more accurate description of companion selection than novel statements which entail the same claim (e.g., *People with divergent interests and personalities tend to be drawn to one another*, McGlone and Necker, 1998). Furthermore, the general reputation of this aphorism as ‘social wisdom’ appears to be resistant to contrary empirical observations in attraction research (e.g., Cash and Derluga, 1978) as well as other conventional aphorisms (e.g., *Birds of a feather flock together*) that directly contradict it (Gibbs and Beitel, 1995; Teigen, 1986). The persuasive force that familiarity confers upon an aphorism may best be characterized as

a product of heuristic thinking: In the absence of evidence relevant to evaluating an aphorism's truth, people treat their prior familiarity with the statement as a partial indicator of its referential validity (see Eagly and Chaiken, 1993, for a discussion of heuristics in persuasion). Several researchers have documented people's reliance on a 'familiarity as credibility' heuristic when evaluating statements of uncertain truth value (Bacon, 1979; Begg and Armour, 1991; Hasher et al., 1977). For example, Hasher et al. (1977) found that mere repetition of unsubstantiated trivia statements (e.g., *Divorce is found only in technically advanced societies*) in a laboratory setting produced a systematic shift in their rated truth value – repeated statements were judged as more likely to be true than non-repeated statements. While use of the 'familiarity as credibility' heuristic may contribute to our belief in conventional sayings, it does not encourage us to believe unfamiliar aphorisms such as *Woes unite foes*. Yet these assertions often strike us as having a 'ring of truth' as well. What characteristics of unfamiliar aphorisms might contribute to this perception?

The present study focuses on the potential role that the aesthetic properties of an aphorism may play in people's perceptions of its truthfulness. Although these statements' reputation as kernels of social wisdom may be dubious, their reputation as verbal art forms is not. Aphorisms employ many of the aesthetic devices exalted in poetry, including metaphor (e.g., *Oppression is the mother of liberty*), paradox (*No news is good news*), parallelism (*A penny saved is a penny earned*), meter (*You can lead a horse to water, but you can't make him drink*), alliteration (*Fortune favors the fool*), assonance (*A rolling stone gathers no moss*), and rhyme (*Haste makes waste*, Gibbs and Beitel, 1995; Odlin, 1986). Traditionally, literary scholars have classified these devices as aspects of aphoristic 'form' that are separate from propositional content (Jakobson, 1960; Goodwin and Wenzel, 1979). In his seminal work on structuralist poetics, Culler (1975: 143) acknowledges this distinction in suggesting that the rhetorical effectiveness of an aphorism depends on the "observable accuracy of its meaning" (i.e., content) and the "aesthetic pleasure afforded by its form".

Although the distinction between content and form clearly has analytic value from the standpoint of a literary critic, it has not been established that readers routinely separate the contributions that these components make to their overall appreciation of an aphorism (McGlone and Necker, 1998). For example, consider how readers might respond differently to *Woes unite foes* and a slightly modified version of this statement – *Woes unite enemies*. The two statements do not appreciably differ in propositional content, but the former has an aesthetic element (i.e., repetition of the stressed vowel and subsequent speech sounds in two or more words, or rhyme, Brogan, 1994) that the latter does not. If readers distinguish between the propositional content of an aphorism and the aesthetic 'pleasure' afforded by its form, then there should be no difference in the perceived accuracy of the rhyming and non-rhyming versions. However, persuasion researchers have demonstrated that the association of a message with a pleasurable peripheral stimulus – whether it be snack food, soft lighting, or an attractive spokesperson – can increase the degree to which people accept the message (Biggers and Pryor, 1982; Chaiken, 1979; Janis et al., 1965; Petty and Cacioppo, 1986). Unlike the pleasurable stimuli examined in past studies, the rhyming quality of an aphorism is not 'peripheral' to the message per se, but

rather to the specific component of the message – its propositional content – upon which judgments of its accuracy should be based. If aphorisms are perceived as more accurate in rhyming than non-rhyming form, this would suggest that the traditional analytic distinction between a statement's 'rhyme and reason' (i.e., form and content) is not always appreciated by readers; in some circumstances, rhyme may be treated *as* reason.

## 2. Method

*Participants.* Eighty Lafayette undergraduates received course extra-credit for their participation. Twenty participated in the materials check phase and 60 in the experiment proper. All were native English speakers.

*Materials.* Aphorisms were selected from the *Penguin dictionary of aphorisms* (Fergusson, 1983) and *The concise Oxford dictionary of proverbs* (Simpson, 1985). Initially, 50 were selected from these collections using the following criteria: (a) the aphorism rhymed; (b) it was an advisory and/or descriptive statement about human behavior (as opposed to a value judgment, which people might be hesitant to judge as accurate or inaccurate); (c) it was not similar in meaning to another selected aphorism; and (d) it was unfamiliar to the authors. For each original rhyming aphorism (e.g., *Woes unite foes*), two non-rhyming forms were created by replacing the first or second rhyming word with a close synonym that did not rhyme with other words in the statement (*Misfortunes unite foes*; *Woes unite enemies*). On the basis of a pilot experiment ( $n = 20$ ), we chose 30 of the 50 aphorism sets for which all participants indicated that (a) they could not recall having read or heard the original aphorism in the past and (b) they did not perceive a difference in meaning between the original and modified versions. The selected original/modified aphorism sets are presented in the appendix. Three lists were created from these materials. Each list contained 10 aphorisms in their original rhyming form and 20 in modified non-rhyming form (10 of each modification type). Although the order in which aphorisms appeared in each list was randomized, the list position of a given aphorism and its modified forms was the same across lists.

*Design and procedure.* This experiment employed a 3 X 3 mixed design with Aphorism Form (rhyming, non-rhyming 1, and non-rhyming 2) and List Version as within- and between-participants factors. Upon arrival in the laboratory, participants were randomly assigned to one of the list versions. The first page of each questionnaire indicated that the experiment was part of a larger study exploring the psychological theories implied by English aphorisms and provided instructions for the ratings task. Participants were instructed to read each aphorism carefully and then to evaluate it on two 9-point scales. On the first scale, they rated the comprehensibility of the aphorism (i.e., the ease with which they understood its meaning), with 1 = 'not at all comprehensible' and 9 = 'very comprehensible'. On the second scale, they rated the degree to which they perceived the aphorism as an 'accurate description of

human behavior', with 1 = 'not at all accurate' and 9 = 'very accurate'. Following the ratings task, participants were asked the following yes/no question: 'In your opinion, do aphorisms that rhyme describe human behavior more accurately than those that do not rhyme?'. After their responses to this question were recorded, participants were debriefed regarding the true purpose of the experiment. On average, the experimental sessions lasted 20 minutes.

### 3. Results

Initial analyses did not reveal any main effects or interactions involving List Version, so subsequent analyses collapsed across this factor. The mean accuracy and comprehensibility ratings for each statement by Aphorism Form are presented in Table 1. Separate repeated measures ANOVAs were conducted on the ratings data treating participants ( $F_p$ ) and items ( $F_i$ ) as random factors. These analyses revealed a reliable main effect of form on the accuracy ratings,  $F_p(2,118) = 9.15, p < .01$ ;  $F_i(2,58) = 4.77, p < .02$ . Planned analytical comparisons (Keppel et al., 1992) indicated that the mean accuracy ratings for the rhyming forms of each aphorism (6.38) were significantly higher than those for either of the non-rhyming forms (5.15 and 5.33),  $F_p(1,118) = 7.54, p < .01$ ;  $F_i(1,58) = 3.91, p < .05$ . The perceived truth advantage of the rhyming forms cannot, however, be attributed to participants finding them easier to understand than their non-rhyming counterparts. There were no differences whatsoever in the mean comprehensibility ratings for the rhyming and non-rhyming forms,  $F_p(2,118) = 1.26, p > .30$ ;  $F_i(2, 58) = 0.78, p > .30$ . Furthermore, this advantage also cannot be attributed to an explicit belief on the part of participants that rhyming aphorisms are more accurate than non-rhyming ones. When asked if they held such a belief, all 60 participants responded 'no' and, anecdotally, many gave us quizzical looks.

Table 1  
Mean comprehensibility and 'accuracy' ratings by aphorism version

	Original form	Modified form #1	Modified form #2
Comprehensibility	7.06	6.83	7.11
Accuracy	6.38	5.15	5.33

### 4. Discussion

In *The Gay Science*, Nietzsche (1986 [1887]: 139–140) attributed the origin of poetry to a primitive belief that rhythm and rhyme could confer magical powers to the words of prayers, carrying them "closer to the ears of the gods". Although this superstition was dismissed long ago in most cultures, Nietzsche observed that "even now ... the wisest among us are still occasionally fooled by rhythm – if only

insofar as *we sometimes consider an idea truer simply because it has a metrical form and presents itself with a divine skip and jump*" (italics added). The results of the present study offer some support for Nietzsche's claim: Participants apparently based their judgments of aphorism accuracy in part on the statements' prosodic qualities. This occurred despite the fact that participants did not read the aphorisms aloud, which would have made those that rhymed especially salient. Among the prosodic poetic devices (e.g., alliteration, assonance, meter), rhyme is the first that children learn to appreciate and one that adults routinely notice even during silent reading (Hayes et al., 1982; Rubin, 1995). Thus it is not surprising that our participants discriminated between the rhyming and non-rhyming aphorisms in each list. What *is* surprising is that they discriminated between these forms in terms of accuracy, even though none of them reported believing that rhyme confers a truth advantage on such statements. That people are often unaware of factors that influence their judgments has been well-documented by psychologists (e.g., Nisbett and Wilson, 1977). However, barring an unconscious belief in the magical power of rhyme on the part of our participants, what accounts for the 'rhyme as reason' effect?

Eagly and Chaiken (1993) suggested that when people lack the knowledge or motivation to critically evaluate a message, their agreement is often based on simple heuristics, such as 'reputable sources tend to make truthful statements' or 'familiar sayings tend to be credible'. The present results suggest that in certain circumstances, people may rely on a rule of thumb in which the aesthetic qualities of a message are equated with its truth. We refer to this rule as the 'Keats heuristic', a reference to the poet's (1833 [1820]) famous assertion that "... beauty is truth, truth beauty". Although we have explored its operation within the narrow domain of antiquated sayings, this heuristic is clearly operative in contemporary communications. Consider defense attorney Johnnie Cochran's celebrated plea to the jury during the O.J. Simpson trial: *If the gloves don't fit, you must acquit!* Journalists have focused almost exclusively on the mnemonic value of rhyme in this statement: Rhyme increased the likelihood that jurors would rehearse, remember, and thus apply Cochran's directive (Buckley, 1997). However, the elegant phrasing of the statement undeniably overshadows its dubious propositional content – i.e., the jury was obligated to consider all of the evidence, not just the tight gloves! In this case, as with unfamiliar aphorisms, rhyme enhanced the message's *immediate* persuasive impact.

### **Appendix: Aphorism Stimuli**

#: Original rhyming proverb

M1: Modified non-rhyming proverb (first rhyming word replaced with a synonym)

M2: Modified non-rhyming proverb (second rhyming word replaced with a synonym)

1. Anger restrained is wisdom gained.

M1: Anger held back is wisdom gained.

M2: Anger restrained is wisdom acquired.

2. Woes unite foes.  
M1: Misfortunes unite foes.  
M2: Woes unite enemies.
3. Those who are poor by condition are rich in ambition.  
M1: Those who are poor by circumstance are rich in ambition.  
M2: Those who are poor by condition are rich in desire.
4. Expectation is better than realization.  
M1: Hope is better than realization.  
M2: Expectation is better than attainment.
5. Where there are no roots, there are no fruits.  
M1: Where there is no foundation, there are no fruits.  
M2: Where there are no roots, there are no harvests.
6. Variety prevents satiety.  
M1: Variation prevents satiety.  
M2: Variety prevents complacency.
7. Children and fools must not play with sharp tools.  
M1: Children and dunces must not play with sharp tools.  
M2: Children and fools must not play with sharp instruments.
8. He who cheats during play will deceive you the rest of the day.  
M1: He who cheats during a game will deceive you the rest of the day.  
M2: He who cheats during play will deceive you the rest of the time.
9. A man of words but not deeds is but a garden full of weeds.  
M1: A man of words but not acts is but a garden full of weeds.  
M2: A man of words but not deeds is but a garden overgrown.
10. Ten good deeds will lie dead for every one that by word of mouth is spread.  
M1: Ten good deeds will be forgotten for every one that by word of mouth is spread.  
M2: Ten good deeds will lie dead for every one that by word of mouth is made known.
11. Ninety percent of inspiration is perspiration.  
M1: Ninety percent of enlightenment is perspiration.  
M2: Ninety percent of inspiration is sweat.
12. What sobriety conceals, alcohol reveals.  
M1: What sobriety obscures, alcohol reveals.  
M2: What sobriety conceals, alcohol unmasks.
13. Fear encourages a sharp ear.  
M1: Anxiety encourages a sharp ear.  
M2: Fear encourages sharp listening.
14. Men should first thrive before they wive.  
M1: Men should first be successful before they wive.

- M2: Men should first thrive before they marry.
15. When good cheer is lacking, friends will go packing.  
 M1: When good cheer is absent, friends will go packing.  
 M2: When good cheer is lacking, friends will go elsewhere.
16. A small acorn sown is a great oak when grown.  
 M1: A small acorn planted is a great oak when grown.  
 M2: A small acorn sown is a great oak when mature.
17. Need makes for greed.  
 M1: Urgency makes for greed.  
 M2: Need makes for avarice.
18. A man of gladness seldom falls into madness.  
 M1: A man of happiness seldom falls into madness.  
 M2: A man of gladness seldom falls into insanity.
19. When fortune torments us, hope contents us.  
 M1: When fortune distresses us, hope contents us.  
 M2: When fortune torments us, hope comforts us.
20. Life is mostly strife.  
 M1: Living is mostly strife.  
 M2: Life is mostly struggle.
21. When land and fortune are gone and spent, then learning is most excellent.  
 M1: When land and fortune are gone and consumed, then learning is most excellent  
 M2: When land and fortune are gone and spent, then learning is superior.
22. He that would the daughter win, must with the mother begin.  
 M1: He that would the daughter court, must with the mother begin.  
 M2: He that would the daughter win, must with the mother start.
23. Great spenders are bad lenders.  
 M1: Great buyers are bad lenders.  
 M2: Great spenders are bad loaners.
24. A person without reason is a deer in season.  
 M1: A person without wisdom is a deer in season.  
 M2: A person without reason is a deer being hunted.
25. Caution and measure will win you treasure.  
 M1: Caution and restraint will win you treasure.  
 M2: Caution and measure will win you riches.
26. It is best to be still to realize one's will.  
 M1: It is best to be calm to realize one's will.  
 M2: It is best to be still to realize one's goal.



27. Little strokes will tumble great oaks.  
 M1: Little chops will tumble great oaks.  
 M2: Little strokes will tumble great trees.
28. Beggars breed while rich men feed.  
 M1: Beggars multiply while rich men feed.  
 M2: Beggars breed while rich men dine.
29. A fault confessed is half redressed.  
 M1: A fault admitted is half redressed.  
 M2: A fault confessed is half atoned.
30. Will is no replacement for skill.  
 M1: Determination is no replacement for skill.  
 M2: Will is no replacement for expertise.

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