

Consequences of Erudite Vernacular Utilized Irrespective of Necessity: Problems with Using Long Words Needlessly

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SUMMARY

Most texts on writing style encourage authors to avoid overly-complex words. However, a majority of undergraduates admit to deliberately increasing the complexity of their vocabulary so as to give the impression of intelligence. This paper explores the extent to which this strategy is effective. Experiments 1–3 manipulate complexity of texts and find a negative relationship between complexity and judged intelligence. This relationship held regardless of the quality of the original essay, and irrespective of the participants' prior expectations of essay quality. The negative impact of complexity was mediated by processing fluency. Experiment 4 directly manipulated fluency and found that texts in hard to read fonts are judged to come from less intelligent authors. Experiment 5 investigated discounting of fluency. When obvious causes for low fluency exist that are not relevant to the judgement at hand, people reduce their reliance on fluency as a cue; in fact, in an effort not to be influenced by the irrelevant source of fluency, they over-compensate and are biased in the opposite direction. Implications and applications are discussed. Copyright © 2005 John Wiley & Sons, Ltd.

When it comes to writing, most experts agree that clarity, simplicity and parsimony are ideals that authors should strive for. In their classic manual of style, Strunk and White (1979) encourage authors to 'omit needless words.' Daryl Bem's (1995) guidelines for submission to *Psychological Bulletin* advise, 'the first step towards clarity is writing simply.' Even the APA publication manual (1996) recommends, 'direct, declarative sentences with simple common words are usually best.'

However, most of us can likely recall having read papers, either by colleagues or students, in which the author appears to be deliberately using overly complex words. Experience suggests that the experts' advice contrasts with prevailing wisdom on how to sound more intelligent as a writer. In fact, when 110 Stanford undergraduates were polled about their writing habits, most of them admitted that they had made their writing more complex in order to appear smarter. For example, when asked, 'Have you ever changed the words in an academic essay to make the essay sound more valid or intelligent by using complicated language?' 86.4% of the sample admitted to having done so. Nearly two-thirds answered yes to the question, 'When you write an essay, do you turn to the thesaurus to choose words that are more complex to give the impression that the content is more valid or intelligent?'

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There are many plausible reasons that the use of million-dollar words would lead readers to believe that an author is smart. Intelligence and large vocabularies are positively correlated (Spearman, 1904). Therefore, by displaying a large vocabulary, one may be providing cues that he or she is intelligent as well. Secondly, writers are assumed to be conforming to the Gricean maxim of manner, 'avoid obscurity of expression' (Grice, 1975). If authors are believed to be writing as simply as possible, but a text is nonetheless complex, a reader might believe that the ideas expressed in that text are also complex, defying all attempts to simplify the language. Further, individuals forced to struggle through a complex text might experience dissonance if they believe that the ideas being conveyed are simple (Festinger, 1957). Thus, individuals might be motivated to perceive a difficult text as being more worthwhile, thereby justifying the effort of processing.

Indeed, there is some evidence that complex vocabulary can be indicative of a more intelligent author. For example, Pennebaker and King (1999) have shown that the percentage of long words used in class assignments positively correlates with SAT scores and exam grades on both multiple choice and essay tests. However it is difficult to draw conclusions about the effectiveness of a strategy of complexity from this data. The study did not look at how readers of the texts containing the long words perceived the authors' intelligence. Thus, it is possible that although students using complex vocabularies are objectively very knowledgeable, they might nonetheless be perceived as being less so.

Why might we believe that the experts might be correct in recommending simplicity in writing? One theory that predicts the effectiveness of straightforward writing is that of processing fluency. Simpler writing is easier to process, and studies have demonstrated that processing fluency is associated with a variety of positive dimensions. Fluency leads to higher judgements of truth (Reber & Schwarz, 1999), confidence (Norwick & Epley, 2002), frequency (Tversky & Kahneman, 1973), fame (Jacoby, Kelley, Brown, & Jasechko, 1989), and even liking (Reber, Winkielman, & Schwarz, 1998). Furthermore, the effects of fluency are strongest when the fluency is discrepant—when the amount of experienced fluency is surprising (Whittlesea & Williams, 2001a, 2001b). As such, it would not be surprising if the lower fluency of overly complex texts caused readers to have negative evaluations of those texts and the associated authors, especially if the complexity was unnecessary and thus surprising readers with the relative disfluency of the text.

Both the experts and prevailing wisdom present plausible views, but which (if either) is correct? The present paper provides an empirical investigation of the strategy of complexity, and finds such a strategy to be unsuccessful. Five studies demonstrate that the loss of fluency due to needless complexity in a text negatively impacts raters' assessments of the text's authors.

EXPERIMENT 1

Experiment 1 aimed to answer several simple questions. First, does increasing the complexity of text succeed in making the author appear more intelligent? Second, to what extent does the success of this strategy depend on the quality of the original, simpler writing? Finally, if the strategy is unsuccessful, is the failure of the strategy due to loss of fluency? To answer these questions, graduate school admission essays were made more complex by substituting some of the original words with their longest applicable thesaurus entries.

While word length is not perfectly interchangeable with sentence complexity—for example, complexity can come from grammatical structure or infrequent words as well—it is a useful proxy. Using length as a manipulation of complexity allows for a simple, easily replicable word replacement algorithm. By keeping content constant and varying the complexity of vocabulary, it was possible to investigate the effectiveness of complexity.

Participants and procedure

Seventy-one Stanford University undergraduates participated to fulfil part of a course requirement. The survey was included in a packet of unrelated one-page questionnaires. Packets were distributed in class, and participants were given a week to complete the entire packet.

Stimuli and design

Six personal statements for admissions to graduate studies in English Literature were downloaded from writing improvement websites. The essays varied greatly both in content and quality of writing. Logical excerpts ranging from 138 to 253 words in length were then taken from each essay. A ‘highly complex’ version of each excerpt was prepared by replacing every noun, verb and adjective with its longest entry in the Microsoft Word 2000 thesaurus. Words that were longer than any thesaurus entry, were not listed in the thesaurus, or for which there was no entry with the same linguistic sense were not replaced. If two entries were of the same length, the replacement was chosen alphabetically. When necessary, minor modifications were made to the essay to maintain the grammatical structure of a sentence (e.g. replacing ‘an’ with ‘a’ for replacement words beginning with consonants). A ‘moderately complex’ version of each excerpt was created using the same algorithm as above, except replacing only every third applicable word. Examples of the stimuli can be found in the appendix.

Each participant received only one excerpt. Participants were informed that the excerpt came from a personal statement for graduate study in the Stanford English department. They were instructed to read the passage, decide whether or not to accept the applicant, and rate their confidence in their decision on a 7-point scale.¹ They were then asked how difficult the passage was to understand, also on a seven-point scale.

Results

The data of one participant was discarded due to an illegible answer. Analysis of the manipulation check showed that more complex texts were more difficult to read. ($x = 2.9$, 4.0 and 4.3 for simple, moderately complex and highly complex, respectively). These differences were reliable, $F(2, 68) = 4.46$, $p < 0.05$, Cohen’s $f = 0.18$. For other analyses, acceptance ratings (+1 for accept, –1 for reject) were multiplied by confidence ratings to create a –7 to 7 scale of admission confidence. Level of complexity had a reliable influence on admission confidence ratings, $F(2, 70) = 2.46$, $p < 0.05$, Cohen’s $f = 0.12$.

¹With the exception of the dichotomous admissions decision, all dependent measures reported in this paper are seven point scales ranging from 1 = ‘not at all’ to 7 = ‘very’.