The Effect of Style and Typography on Perceptions of Document Tone

Mary B. Evans
evansmb@u.washington.edu

Alicia A. McBride
aam2@u.washington.edu

Matt Queen
mqn@u.washington.edu

Alex Thayer
huevos@alumni.washington.edu

Jan H. Spyridakis
jansp@u.washington.edu

University of Washington
Box 352195
Seattle, WA 98195-2195

Abstract

This paper presents a study of the effect of stylistic and typographic elements, such as passive voice, personal pronouns, and letter spacing, on readers’ perceptions of document tone. The study was administered as an online survey that asked participants to rate the formality of text passages that exemplified a particular style or typographic condition. Results indicated that active voice, personal pronouns, verb contractions, and informal punctuation cause texts to be perceived as significantly more informal in tone.

Keywords: tone, perception, typography

1. Introduction

The tone of a text is commonly defined as an author’s attitude towards the subject and audience, as manifested in the text (e.g., [1], [2]). While the tone of literary texts in particular can be characterized in innumerable ways (e.g., enthusiastic, somber, flippant), a small number of tone characteristics are seen as especially important to technical communicators. At the University of Washington, for example, technical communication students are taught to analyze tone on three continua: personal to impersonal, informal to formal, and positive to negative. Students are taught to select a document tone appropriate for the rhetorical task at hand: e.g., choosing a relatively informal, personal tone for an instruction manual, and a more formal, impersonal tone for government and legal documents. Tone is also believed to be conveyed graphically. Some graphic designers have speculated that typographical characteristics such as shape, weight, and the presence or absence of serifs may affect the tone of a document. Carefully fitting tone to a document’s rhetorical purpose is seen to be an important way to ensure the document’s communication effectiveness. However, little empirical research has been conducted to investigate the degree to which stylistic and typographic variables affect readers’ perception of tone.

2. Relevant literature

Many technical communicators assert that the tone of documents can be controlled, at least in part, by manipulating particular stylistic elements. For example, verb contractions are seen as typical of informal tone [1], [3], and the use of contractions is seen as relating to the formality of a text [4]. Avoidance of personal pronouns, especially the first-person pronoun, I, is seen to typify impersonal tone [2], [5], and Stratton [4] recommends using first- and second-person pronouns, along with the names of people and personal words (e.g., father, child, family), to achieve a more personal tone. A strong affinity between passive voice and impersonal tone is believed to exist [6], perhaps because the avoidance of personal pronouns often causes writers to use passive voice [7], [2].

Numerous textbooks and style guides assert that tone is an important influence on how readers respond to texts, and at least one study supports this claim. Zaharias [8], for example, asked undergraduate students to read literary works that were either lighthearted or serious in tone (as judged by the author, who did not describe how she operationalized these two types of tone). She found that the two kinds of tone resulted in different judgments (on the reader’s part) as to the kinds of questions relevant to understanding the texts (e.g., questions related to readers’ feelings, the construction and meaning of the text, or the text’s literary form).

While these assertions about the influence of stylistic elements on tone may not have been tested empirically in
previous studies, researchers have observed the influence of tone in different genres, professional domains, and cultures. For example, using lexical analysis, Beck and Wegner [9] rated the degree of enthusiasm of proposals submitted to public agencies and found the tone of social science/humanities proposals to be significantly more enthusiastic than science/engineering proposals. Luchtenberg observed that U.S. computer manuals are typified by a “friendly, helping voice” ([10], p. 316) while German manuals are less friendly in tone. Asserting that culture is the reason for the differences in tone that she observed, she speculates that German writers may eventually adopt a tone more similar to the U.S. style.

Many document designers assert that typefaces have distinct personalities and convey tone to readers (e.g., [11], [12], [13]). Brumberger [14] and Shriver [13], however, find relatively little empirical evidence to support these claims: most research on typography has focused on readability and legibility. The few studies of typeface personality (e.g., [14], [11], [15]) have generally found that people tend to judge the personality attributes of particular typefaces (e.g., professional, inviting, cold) similarly. These studies have shown that typeface personality can be judged independently of semantic content. In other words, a string of Greeked characters is sufficient to judge the personality of a typeface. Some document design experts assert that type personality also is influenced by characteristics of typefaces, such as shape and weight, and length of ascenders and descenders, as well as whether a typeface is serif or sans serif [14]. However, these beliefs do not yet appear to have been empirically tested.

It is possible that other typographic elements, such as type and amount of letterspacing, influence perceptions of the tone of a text, but we could find no evidence that this has been experimentally tested. The perceived tone of kerning and monospacing may very well depend on letter juxtapositions as they occur in natural language and hence may best be studied in that context (as opposed to Greeked text).

Given that many technical communicators assert that a variety of stylistic elements influence readers’ perceptions of document tone, and those assertions have been little-tested in empirical research studies, we conducted the study described here.

2.1 Hypotheses of the current study

This study investigated the effect of eight stylistic and typographic variables on readers’ perceptions of the formality of document tone. It specifically investigated the following hypotheses:

1. Readers will rate the tone of text passages as more informal if those passages include: (a) personal pronouns (e.g., I, we, and/or you); (b) informal punctuation (dashes, ellipses, and sentence fragments); (c) verb contractions; (d) the word “welcome” (e.g., “We welcome you to our Web site”); or (e) clauses in active rather than passive voice.

2. Readers’ ratings of the tonal formality of text passages will not be influenced by variations in the letterspacing (e.g., monospacing, regular spacing, or relative spacing of kerned letter pairs) in text passages.

3. Method

To test the hypotheses listed above, the study measured the effect of eight stylistic and typographic variables on readers’ ratings of the formality of short text passages presented online.

3.1 Participants

A total of 182 undergraduate engineering students enrolled in an introductory technical communication course participated in this study during February and March 2004. The students had not been formally introduced to concepts of document tone at the time of the study. Participants ranged in age from 18 to 38; 154 were male and 28 female. They received extra credit points for participating in this study.

3.2 Materials

The materials for this study included an online survey with (a) an introductory page including a welcome page and human-subjects disclaimer sentences, and (b) four versions of a test page with instructions that asked participants to rate the formality of 19 text passages and answer a short set of demographic questions. The Times typeface was used for all passages in the online survey. Each test page included the text passages to be rated in the left hand portion of the page with a 5-point formality scale from 1, “Very informal,” to 5, “Very formal” on the right-hand portion of the page. On each test page, the series of text passages was followed by a short series of demographic questions.

The text passages displayed on the test page were drawn from (a) four sets of paired text passages in which the first passage in a pair exemplified a particular style condition and the second had been modified by the researchers to neutralize that condition, and (b) four sets of three text passages in which letterspacing was either monospaced, kerned, or regular (neither kerned nor monospaced). Each of the four versions of the test page included a different series of randomly assigned text passages, following a modified Latin square design. None
of the four versions of the test page included both versions of the same base sentence (or all three versions in the case of letterspacing). E.g., while each participant was asked to rate passages in both active and passive voice, the two passages seen by a given participant represented two different base sentences.

For the stylistic variables, the original text passages were collected from university Web sites in 20 countries in which English is, either the first language, the official language, or the co-language. In order to isolate the variables of interest, the passages were modified (standardized) by removing potential confounding influences such as: (a) country-specific references; (b) clauses, phrases, and other words that made passages excessively long and did not contribute significantly to the passages’ meanings; (c) grammatical errors; (d) spelling, capitalization, and punctuation variations (adjusted to fit U.S. writing conventions); (e) verb contractions, except when this tone element was the object of manipulation; and (f) place or institution expected to elicit strong subjective responses (e.g., all university names were changed to “Riverview University”). Table 1 shows examples of paired passages used in the study. For the letterspacing variables, a set of text passages rated as tonally neutral in a pilot study was used.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Example passage</th>
</tr>
</thead>
<tbody>
<tr>
<td>“You” included</td>
<td>While this university may seem large, once you explore it, it will become your resource for a lifetime.</td>
</tr>
<tr>
<td>“You” excluded</td>
<td>While this university may seem large, once students explore it, it will become their resource for a lifetime.</td>
</tr>
<tr>
<td>Passive voice</td>
<td>The students are challenged by outstanding faculty.</td>
</tr>
<tr>
<td>Active voice</td>
<td>Outstanding faculty challenge the students.</td>
</tr>
<tr>
<td>Verb contracted</td>
<td>We hope you’ll want to join us.</td>
</tr>
<tr>
<td>Verb uncontracted</td>
<td>We hope you will want to join us.</td>
</tr>
<tr>
<td>Informal punctuation</td>
<td>Our alumni can be found in every aspect of society—from business to social work to theatre.</td>
</tr>
<tr>
<td>Formal punctuation</td>
<td>Our alumni can be found in every aspect of society: from business to social work to theatre.</td>
</tr>
</tbody>
</table>

Procedure. All participants received printed flyers about the study from their instructors. Participants went to the URL listed on the flyer at times convenient for them, using remote Internet connections. When each participant opened the initial page of the online survey, one of the four versions of the survey was randomly displayed. Each participant read the introductory section and then completed the survey. Their responses were logged in a text file.

Data analysis. Survey responses and demographic data were analyzed in SPSS 11.5 on a personal computer.

4. Results and discussion

This section discusses the observed effects of the stylistic and typographical variables on participants’ ratings of the formality of the text passages. In this study, an alpha level of .05 or less was considered significant; in other words, there would be only a 5% chance that findings reported as significant would be due to chance.

Stylistic variables. The research hypothesis related to stylistic variables was upheld in this study. All seven stylistic variables significantly influenced participants’ ratings of tone formality. Including personal pronouns or the word “Welcome,” or using active voice, verb contractions, or informal punctuation caused text passages to be rated as significantly less formal in tone.

Letterspacing. The exploratory hypothesis related to letterspacing was also upheld in this study. No significant effect for letterspacing (as monospacing, kerning, and regular spacing) on participants’ ratings of formality occurred.

5. Conclusions and future research

This study’s findings support technical communicators’ assertions about how stylistic variables such as passive and active voice, formal and informal punctuation, personal pronouns, and verb contractions influence readers’ perceptions of the formality of text documents. These findings can help technical communicators and other writers feel more confident about how some of their stylistic decisions affect the way their work is perceived by their audiences. The findings also show that letterspacing does not influence readers’ perceptions of the formality of text passages that are semantically neutral in tone.

This study suggests other questions for future research. First, the study was conducted within the U.S. cultural setting. It would be very interesting to learn whether stylistic and typographic elements affect readers’ perceptions of document tone differently in other cultural settings where English is used. Results from such a study would help researchers to answer questions about the degree to which professional communication norms are becoming globalized in response to widespread use of the Internet and other communication technologies. Second, studies of typography and tone have focused on readers’ perceptions of typefaces. It would be interesting to investigate whether standard aspects of typefaces (i.e., pitch, x-height, counter size, stroke thickness) as well as other typographic variables, such as word spacing, leading, italicizing, and bolding, influence readers’
perceptions of tone. It also would be illuminating to study the possible interactions between letterspacing and stylistic variables in a factorial design.

6. References


About the Authors

Mary B. Evans is a Ph.D. student in the Department of Technical Communication at the University of Washington in Seattle, where her interest areas include usability engineering and international technical communication. For her M.S. in technical communication from the University of Washington, she developed a set of empirically-supported web design guidelines. She formerly served as a research analyst and web developer in the Hazardous Materials Response Division, National Oceanic and Atmospheric Administration, Seattle.

Alicia McBride is an M.S. student in the Department of Technical Communication at the University of Washington in Seattle, where her interest areas include the connections between communication and public policy and international technical communication. Prior to her return to graduate school, Alicia worked for the Friends Committee on National Legislation, a Quaker lobby organization in Washington, DC.

Matt Queen is an M.S. student in the Department of Technical Communication at the University of Washington in Seattle, where his interest areas include geospatial uncertainty visualization, and international issues in digital media design. He formerly served as a designer and developer of large scale database visualization systems for the Defense Advanced Research Project Agency.

Alex Thayer is an M.S. student in the Department of Technical Communication at the University of Washington in Seattle, where his interest areas include digital gaming and international uses of technologies. He formerly served as an information designer at IBM, where he developed a documentation interface that garnered a patent.

Jan H. Spyridakis is a Professor in the Department of Technical Communication at the University of Washington. Her research focuses on assessing document and screen design variables that affect comprehension and usability, cross-cultural audiences, and the refinement of research methods.