
**REVIEW ARTICLE**


1 Introduction

When I was an undergraduate, I took a course on literary criticism from the poet J.V. Cunningham. The first day of class, he offered up a definition of poetry: “what you get when you go into a bookstore and ask for a book of poetry.” Given the protean character of this literary form (encompassing Homeric epics, Shakespearean sonnets, Japanese haiku, and even rap), perhaps Cunningham’s ostensive definition was at least as useful as the denotative formulations we find in *Webster’s* or the *OED*.

Contemporary discussions of writing increasingly tempt me to adopt the matter-of-fact definitional approach of a Cunningham: “writing is language that is visible and durable (thereby eliminating sign languages) rather than auditory.” While the definition may be short on substance, it rises above the quagmire in which we generally find ourselves when we attempt to characterize “writing”, especially modulo its spoken cousin.

In the last few decades of the twentieth century, a growing number of linguists (e.g., Baron 1981; R. Harris 1986, 1995; Biber 1988; Downing, Lima & Noonan 1992; Taylor & Olson 1995; Hughes 1996; Cornbleet & Carter 2001) began investigating writing as a form of language, *sui generis*, rather than following Leonard Bloomfield’s dictum that writing is only a speech surrogate – “merely a way of recording language by visible marks” (Bloomfield 1933:21). A frequent exercise (e.g., Chafe & Danielewicz 1987; Chafe & Tannen 1987; Biber 1988; Crystal 1995) was to delineate point-by-point comparisons between paradigmatic written and spoken language. To wit: writing is formal while speech is informal; writing uses fewer first and second person pronouns than speech; writing is acontextual while speaking is context-based; writing allows no feedback while speech does; and so on. At the same time, linguists were quick to admit (e.g., Tannen 1982a, 1982b) that firm distinctions between actual (rather than paradigmatic) writing and speech are often difficult to draw. In the real world, writing may be formal or informal (e.g., the American Constitution versus a grocery list), as can the spoken word (a maiden speech in Parliament versus a weekly telephone chat with one’s aging grandmother).

More recently, with the rise of computer-mediated communication (including such venues as email, listservs, chat rooms, instant messaging, blogs, and text messaging), the general public has become increasingly inquisitive about the relationship between spoken and written language. Two issues have dominated the discussion: first, is computer-mediated communication (CMC) more like written or spoken language (e.g., Collot & Belmore 1996; Yates 1996; Baron 1998, In Press; Crystal 2001) and second, is CMC corrupting written language standards. Following their modern descriptivist heritage, linguists interviewed in the news media (e.g., “On the Media” 2004) commonly dismiss pedagogues’ fears over the decline of traditional writing mechanics and instead celebrate the proliferation of CMC-based writing by teenagers and young adults.
Enthusiasts speak of an “epistolary renaissance” unfolding on the Internet, though technically, some of that writing takes the form of diaries, short stories, or personal rants rather than letters directed to particular individuals. No longer (so the argument goes) must we bemoan the twentieth-century tendency for telephone conversations to drive out written communication. Where thank-you letters (or written condolences) had, for a time, yielded to telephoned expressions of gratitude (or grief), now email and instant messaging (IM) return us to the written fold.

Given the rise in professional and popular interest in writing, the appearance of Vivian Cook’s *The English Writing System* is especially timely. The book, which grew out of a course Cook teaches on the same topic, successfully brings together a cluster of issues that most university students of English or of linguistics (at least in the United States) encounter all too rarely: an overview of alternative writing systems, discussion of the relationship between speech and writing, analysis of the English spelling and punctuation systems (including challenges confronting native speakers and second language learners), a synopsis of the historical evolution of English spelling, and discussion of variation in English orthography (including differences between British and American systems, as well as comments on spelling conventions emerging in computer-mediated communication). In addition the book provides a fitting backdrop against which to re-examine the relationship between speech and writing in light of the proliferation of computer-based communication, in which the dividing line between speech and writing is becoming increasingly blurred.

2 What is there to know about the English writing system?

To chart the landscape of written English, we begin with four questions. The first – our old nemesis – is how to characterize the relationship between speech and writing. The second is where written English fits into the spectrum of possible systems for pairing sound and meaning through durable representation. The third asks how the mechanics of written English work, specifically the spelling and punctuation systems. And lastly, given the enduring reality that writing conventions vary across users, contexts of usage, and time, what are we describing when we describe “written English”? Equally importantly, what writing conventions are we inculcating into new generations of writers – native and non-native speakers alike?

2.1 The relationship between speech and writing

Cook’s discussion of the “relationship” question opens with a quotation from T.S. Eliot:

an identical spoken and written language would be practically intolerable; if we spoke as we write, we would find no one to listen; and if we wrote as we speak, we should find no one to read. The spoken and written language must not be too near together, as they must not be too far apart. (cited in Cook, p. 31)

The question, of course, is what counts as “too near” or “too far apart”. After presenting very helpful tables, boxed text, and figures summarizing features characterizing spoken
or written language, Cook reminds us that at least in the contemporary language game, we are allowed to move the goal posts. He writes: “Journal editors have tried over the years to eliminate the occasional ‘incomplete’ sentence from my writing” (p. 43) – a grammatical feature more often found in spoken than in written text. It seems that one reviewer of his work interpreted these written sentence fragments as a sign that Cook was not a native speaker of English. Cook’s response: “A written sentence begins with a capital. Ends with a full stop. So there.” (p. 43)

Traditional linguistic discussions of writing have generally been formulated modulo speech, rather than on their own terms. To the extent our interests are genuinely comparative (e.g., as Eliot’s or a high school English-teacher’s might be), such contrastive analysis is appropriate. However, comparison may not be the best tool for making sense of the distinct entities in question. As Cook wryly suggests, “Comparing George Bush with George W. Bush will yield a list of similarities and dissimilarities in terms of height, intelligence, foreign policy and so on; but it will never tell us the peculiar qualities of either” (p. 52). And so, Cook counsels, if we want to understand the unique properties of written English, we need to “move on beyond the continual comparison with spoken language” (p. 52).

2.2 Types of writing systems

Writing represents something, but what is that something it represents? Historical accounts of the emergence of the world’s writing systems (e.g., Coulmas 1989) generally distinguish between systems representing words (logographic, e.g., Chinese characters), schemes standing for syllables (syllabic, e.g., Japanese ひらがな and かな), and those based upon individual sounds (alphabetic, e.g., used to represent Greek, Finnish, or English). While Cook offers a lucid description of the standard categories and some of their variants (e.g., consonantal alphabets used by Semitic languages), his ultimate interest is in the way written English is symbolically recorded and decoded. Therefore, his chapter on “Ways of Writing” emphasizes the distinction between meaning-based systems (essentially, logographic) and sound-based systems (syllabic and alphabetic).

In contrasting meaning-based and sound-based systems, Cook methodically lays the groundwork for his subsequent discussion of written English by explaining that in the real world, the meaning-sound dichotomy is far from absolute. Rather, both systems encompass a spectrum of relationships. While Finnish, for example, has a reasonably close one-to-one match between spoken sounds and alphabetic representations of those sounds, that relationship is more tenuous in Modern English (thanks to massive lexical borrowings, dialect variation, and, of course, the Great Vowel Shift). By repeatedly comparing sound-based with meaning-based writing systems, Cook prepares us for the argument laid out by Noam Chomsky and Morris Halle in The Sound Pattern of English (1968) that English orthography (or at least much of it) actually represents morphemes, not sounds. As a result, linguists ever since have persisted in suggesting that perhaps the English spelling system is not as chaotic as most of us tend to believe. The real problem

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1 The older notion of so-called ideographic systems (representing concepts or ideas) has now largely been replaced by the logographic category, since we lack an objective basis for distinguishing between ideas and the words we use to represent them.
is that we have misunderstood what a good job the system does at representing English at the morphological level.

2.3 The mechanics of writing: spelling and punctuation

The bulk of *The English Writing System* is devoted to writing mechanics. While the English spelling system fittingly dominates the analysis, punctuation also receives its due. Cook’s notion of what we need to know about English writing mechanics (especially English spelling) is refreshingly broad. In addition to his empirical discussion of English spelling “rules” and his comparison of alternative models of the larger spelling system, Cook presents useful overviews of the stages via which native speakers of English commonly learn to spell, along with observations on special challenges facing non-native speakers. Cook’s chapters offer unique one-stop shopping to present and future teachers of English to speakers of other languages, whose need to understand the vagaries of spelling and pronunciation has not heretofore been addressed in a single, linguistically sophisticated text.

2.4 Language as a moving target

The last of our questions about the English writing system concerns the challenge of variation and change: whose written system do you portray? Admittedly, the same problem arises in analyzing speech: is the generic name for carbonated beverages *soda*, *pop*, *tonic*, or *coke*? are *pin* and *pen* homophones? is “Every child should drink their milk” grammatically correct? Cook’s contribution is to remind us that writing also is characterized by variant forms (e.g., British *programme* versus American *program*) and that commercial forces are a ready source of novel spellings, intentional or otherwise. I am reminded of the fact that Sergey Brin (one of Google’s co-founders) had intended to call his Web crawler “Googol” (the name given to the number $10^{100}$), but for two years, neither he nor his partner Brian Lent realized they were spelling the name of their program incorrectly (Brandt 2004). Given Google’s astounding success, it might not be surprising if the original spelling used in mathematics were eventually to be replaced with the version appearing in the name of the search engine. After all, how many people remember that the variety of apple is actually <McIntosh>, not <Macintosh> – the latter rendition being mistakenly used by another inexact speller, Steve Jobs, to name his landmark computer in 1984. Clearly, a company called “Apple” had not intended to name a computer after a raincoat.

Why does identifying a single written norm matter? The answer is: education. Non-native speakers (and their teachers) are hungry to know the rules and regularities of the written language they are learning and teaching. At least in the United States, there is no norm-setting body that decrees, for example, whether it is admissible to use contractions in formal written text, whether one may combine British and American spellings (e.g., British *theatre* with American *program*), or how many commas belong in a sentence such as “After a leisurely dinner Tom Dick and Harry went for a walk.” To be fair, native speakers of English face the same challenges. However, in recent decades, at least in the US, writing pedagogy has shifted its emphasis from structural concerns to content. “Write what’s on your mind,” we tell our students. “Don’t worry about the
sentence mechanics.’’ As a result, sustained lessons on spelling and punctuation are about as common as the dodo bird in many American classrooms.

3 Minding the mechanics

Given how far sentence mechanics such as spelling and punctuation have fallen from pedagogical grace, we might reasonably ask who besides a small camp of linguists, along with conscientious non-native speakers of English, might be fascinated by historical and current analyses of these handmaidens to writing. I suggest the answer is a wide swath of the educated public, including anyone who cares about what kind of language comes out when he or she speaks, puts pen to paper, or engages in any form of computer-mediated communication. As I have argued elsewhere (Baron 2000), historical spelling and punctuation practices are reliable bellwethers of more general attitudes towards the relationship between spoken and written language. Given contemporary fascination with new computer-based venues for creating written text, coupled with persistent concerns that CMC is driving written English to hell in a hand basket, the time seems ripe for thinking more seriously about writing mechanics.

3.1 Spelling past and present

The contemporary English spelling system is generally given a bad rap. There are not enough letters to represent all the sounds in the language (hence, the letter <a> does multiple duty, standing, for example, for the sound [æ] in bad, the [e] in bade, and [x] in the British pronunciation of law). English has some unfortunate homographs (e.g., the infinitive read bumps up against its past participle read). Historical reminders of the Great Vowel Shift include different pronunciations for the letter <i> representing the second vowel in the words divine and divinity. And the sound/spelling relationship of some loan words only makes sense if you know about the historical zeal of the Renaissance to retrofit good Middle English words such as <perfit> and <yland> back to <perfect> and <island>, reflecting the original Latin roots (Scragg 1974: 54, 57).

Cook cries foul at the spelling system’s poor reputation:

The perceived problem [with contemporary English spelling] is partly a matter of double standards: while people insist that words should have a simple standardized form, with the partial exception of proper names, no one makes such claims for phonology or grammar (p. 173)

Cook is right, of course, as anyone learning English as a second language can attest. Why, then, does spelling get singled out? I suspect the answer lies in the most obvious distinction between speech and writing: while speech is ephemeral, writing is durable. With writing, our mistakes come back to haunt us. Every time we represent a letter, a pause, a sentence on page or screen, we have opened ourselves to the judgments of others. Our speech, by contrast, is usually afforded two handicaps. Since speech is ephemeral, some of our errors simply pass our listeners by. Even if we are caught out, our pleas of “slip of the tongue” are nearly always honored.
We can think about English spelling (past and present) in a variety of ways. One set of approaches is structural. For starters, we can identify the physical changes that have come about in graphemic representations over time, e.g., the switch from runes to an adapted version of the Roman alphabet, later elimination of letters such as thorn (<Þ>) and wynn (<xx>), or the evolution of manuscript hands and then of type fonts. Second, we can chart changing relationships between English phonology and orthographic representations of the language, taking into account such historical transformations as the reduction of the English inflectional system (rendering word-final <-e> “silent” in words such as name), changes in the way word-initial <kn-> (e.g., knight) and word-final <-gh> (e.g., laugh) are pronounced, and, of course, the Great Vowel Shift, which superimposed a redistributed configuration of vowel pronunciations upon an in-place spelling system. And third, we can look for sources of regularity in the contemporary orthographic system we have inherited. Cook offers up some rules governing contemporary spelling of which most of us are probably unaware (e.g., initial <th-> is pronounced as a voiced [ð] in function words, such as the, but as voiceless [θ] in content words, as in theory). He then proceeds to compare the spelling models that Richard Venezky, Ken Albrow, and Noam (and derivatively Carol) Chomsky have devised to account for some percentage of the regularities found in contemporary English orthography.

An alternative way of thinking about English spelling is more socially and pedagogically oriented. The most familiar of these approaches is represented by attempts at spelling reform, which have a long history. Around the year 1200, an Augustinian canon named Orm devised a revised spelling system for his dialect of Middle English. His apparent goal was to aid preachers (who commonly read their sermons aloud) by encoding texts in an orthographic system based upon one-to-one correspondences between letters and sounds (Blake 1996: 125ff). The impact of Orm’s work appears to be negligible, a fate shared by most would-be spelling reformers, including Sir John Cheke (in the sixteenth century) and George Bernard Shaw (a century ago). The most successful of the lot was probably Noah Webster, though his major accomplishment was to begin the division between British and American orthographic conventions (e.g., colour versus color, theatre versus theater).

As Orm would have understood, the primary reason for undertaking spelling reform is to make the written language readily accessible to a larger number of people. (Webster’s patriotic motivations were a partial exception, though his dictionary and blue-backed speller were long part of the backbone of American primary education.) Linguists may be clever at identifying orthographic patterns in English, yet the fact remains that many native speakers struggle to master English spelling (assuming they are even trying). For second-language learners, who lack native-speaker intuitions that link such word-pairs as divine/divinity or sign/signature, the problems are even worse. Successful orthographic reform (whether desirable or not) is perhaps only possible when politically mandated, as when Atatürk introduced a modified Roman alphabet for writing Turkish (replacing Arabic script) or when the People’s Republic of China legislated the simplification of Chinese characters, beginning in the 1950s (Lehmann 1975, Lewis 1999).

For our purposes, though, the most interesting question regarding social and pedagogical approaches to spelling is attitudinal shifts over the last 500 years regarding the importance of orthographic norms. Students of Middle English are aware, for
example, that the same word might be spelled multiple ways in the centuries between the Norman invasion and the death of Chaucer (e.g., the verb *say* can be found as *<sai>*, *<say>* , *<saie>* , and *<sei>* , sometimes even in the same manuscript). More widely familiar are stories regarding Elizabethan writing, e.g., that Shakespeare signed his own name with at least six different spellings (Crystal 1995: 149) or that early seventeenth-century printers sometimes intentionally selected longer or shorter spelling variants to help approximate right-justified margins, such as *heere* (five graphemes) versus *here* (four graphemes) (Prouty 1954: xxvii).

By the eighteenth century, the English-speaking world underwent a sea change regarding social attitudes towards spelling. The advice that Philip Dormer (better known as Lord Chesterfield) gave to his son in 1750 is commonly noted:

> orthography, in the true sense of the word, is so absolutely necessary for a man of letters, or a gentleman, that one false spelling may fix a ridicule upon him for the rest of his life. (*Letters to His Son*, 1775; cited in Cook, p. 55)

On the other side of the Atlantic, Thomas Jefferson cautioned his daughter,

> Take care that you never spell a word wrong. Always before you write a word, consider how it is spelled, and, if you do not remember, turn to a dictionary. It produces great praise to a lady to spell well. (*Letter to Thomas Jefferson’s daughter Martha*, 1783; cited in Cook, p. 55)

As the oral society of medieval and early modern Europe gave way to a print culture in England (and, by extension, America), normative spelling became a mark of education and of class. To those who had already socially arrived and those who hoped to do so, spelling became an inescapable mark of one’s public standing. Perhaps it should therefore come as no surprise that Andrew Jackson, the rough-and-tumble mid-nineteenth century US president from the backwoods of Tennessee, should have said, “It is a poor mind that cannot think of more than one way to spell a word.” (cited in Cook, p. 187)

But the Jacksonian exception proved the rising middle-class rule: correct spelling mattered in the modern world. Through much of the twentieth century, spelling bees were still common in American classrooms, and English teachers had no qualms about giving a failing grade to a student paper containing a single orthographic error. However, by the end of the century, the emphasis in the English writing curriculum had largely shifted away from writing mechanics. Not surprisingly, many students (and adults) breathed a sigh of relief. Current writing patterns (even in published venues) increasingly suggest that normative spelling is now optional.

Yet however bad some individual spelling habits have become, we can occasionally detect twinges of guilt, along with recognition that spelling, like clothes, can still make the man. A couple of years ago, an article in the New York *Times* on email writing conventions recounted the frustration of a fellow who had introduced himself to a woman he had met in a bar, where they had exchanged email addresses. The would-be suitor went home and composed an email to the woman, inviting her out on a date. Alas, he never received a reply. Perhaps, he reflected, she was turned off by his dreadful spelling.
Looking at contemporary writing by teenagers and young adults, we find that spelling still may be an important social marker, though not of the sort Lord Chesterfield or Jefferson had in mind. The popular press is saturated with stories about how adolescent users of instant messaging (IM) and text messaging on mobile phones (known in much of the world as SMS) are incessantly using abbreviations, acronyms, and misspelled words in their communiqués. However, in assessing the state of written English, we need to be aware that non-normative spelling may reflect a conscious decision rather than sloppiness or ignorance. Many teenagers work hard at crafting messages through which they attempt to present themselves in a socially favorable light. The son of one of my colleagues, in sending IMs to his friends, sometimes needs to “correct” his initial, spontaneous spelling of the word \textit{you}, changing \texttt{<you>\textbackslash n} to \texttt{<U>\textbackslash n} so as not to appear too formal.

3.2 Punctuation past and present

Like orthography, punctuation in written English\footnote{We include under the category of punctuation the usual cast of suspects (commas, colons, semicolons, periods, question marks, and exclamation marks), along with apostrophes (indicating letter omissions in contractions and possessives), hyphens and dashes, quotation marks (single or double), parentheses and brackets, ellipses, italics and underlining, paragraph conventions, and capitalization.} has undergone an historical evolution since its first appearance in English texts. However, unlike spelling, punctuation has received comparatively little attention. One reason is that there are far fewer regularities to master in punctuation than in spelling. A second is that those whom we see as language authorities (be they the eighteenth-century prescriptivists, newspaper editorial boards, or classroom teachers) have yet to resolve whether punctuation should be used for rhetorical (what Cook calls “correspondence”) or grammatical purposes.

Punctuation first arose in the rhetorical traditions of Greece and Rome, which needed a system for marking where a reader should pause when delivering a formal written text aloud. In the clever verse of the humorist Richard Armour,

\begin{quote}
Consider the comma, most used of all marks.
In back of a word,
You will notice,
It parks
And waits for the reader and tells him to pause
Before, let us say,
He begins a new clause. (Armour 1969, p. 15)
\end{quote}

In the classical world, a short pause was indicated by the equivalent of today’s comma; a longer pause, by a colon; and the longest pause, by a period. This system entered England with the coming of Latin texts during the Old English period. Gradually, these pause marks began appearing in Anglo-Saxon texts written in Roman characters, i.e., as opposed to those early texts written in runes. At the same time, word separation was introduced into Latin texts used in the British Isles. (In classical Latin, words were written continuously – \textit{scriptio continua}, without spaces between them. See Saenger 1997
for the fuller story.) The number of punctuation marks gradually increased in England (e.g., with the addition of the equivalent of quotation marks, question marks, and parentheses), but the overriding function of punctuation remained rhetorical up through the sixteenth century.

The second punctuation tradition, known alternatively as “logical” or “grammatical”, began taking hold sometime in the seventeenth century. The goal of grammatical punctuation is to help elucidate grammatical relationships in sentences that are intended to be read silently (silent reading being one of the hallmarks of the rising print culture). The punctuation scheme most of us learned in school is grammatical punctuation.

What is the difference between the two punctuation models? Consider a sentence such as “Melissa wants a year-long round-the-world cruise and a ski chalet nestled somewhere in the Alps.” Using grammatical punctuation, the only mark needed is a period after “Alps”. Since the sentence has just one main clause (schematically, “Melissa wants X and Y”), no sentence-internal punctuation is required. However, were we to speak the sentence aloud, we would probably pause after “cruise”. Therefore, rhetorical punctuation would insert a comma after “cruise”, even though the following phrase (“and a ski chalet nestled somewhere in the Alps”) is not an independent clause.

For students of English (both pupils and academics), the distinction between rhetorical and grammatical punctuation matters because our punctuation choices are sure-fire indications of our attitudes towards the relationship between speech and writing. Historically, a number of societies (including classical Greece and Rome) essentially functioned as oral cultures, despite the presence of small (though obviously important) literate subgroups (W.V. Harris 1989). Rhetorical punctuation emerged in the oral traditions of Greece and Rome and was perpetuated in the oral world of medieval England, where formal writing (including poetry and scripture) was largely meant to be read aloud. With the gradual rise of print culture in the west, writing came into its own as a linguistic modality apart from speech. Writing that was intended to be read silently developed distinctive vocabulary, grammar, and punctuation. Granted, some written texts were still designed to be rendered orally (such as plays or sermons). However, in the English-speaking world, the basic dichotomy between paradigmatic speech (ignoring, for example, papers read at professional conferences) and paradigmatic writing (ignoring shopping lists or informal letters) was maintained through much of the twentieth century.

In the closing decades of the last century, the relationship between speech and writing once again shifted. In medieval England, writing had largely been used to represent formal speech. In early modern and then modern England and America, speech and writing evolved into identifiably distinct genres. These days, writing is once again gravitating towards speech, though this time the written word increasingly represents informal speech, not the formal oral language of yore (Baron 2000). The re-emergence of rhetorical punctuation, even in texts produced by educated writers, provides clear evidence of this linguistic shift.

Wallace Chafe, who has charted contemporary punctuation patterns used by college students and adults, argues that the main function of punctuation is “to tell us something about a writer’s intentions with regard to the prosody of [a writer’s] inner voice,” where this inner voice contains “auditory images of specific intonations, accents, pauses, rhythms, and voice qualities.” (Chafe 1988: 397) Chafe’s definition of inner
voice recalls the goals of rhetorical punctuation in the days when texts were largely read aloud. Though obviously sensitive to the longstanding pedagogical tradition of teaching grammatical punctuation in schools, Chafe suggests that use of rhetorical punctuation in formal writing might be appropriate:

> carrying over speaking habits into writing may not in every instance be a bad thing. Perhaps punctuating as one speaks can in some cases lead to greater readability and greater impact, if only students could learn to do it with the judiciousness that writing allows and fosters. (Danielewicz & Chafe 1985: 225)

Like spelling, punctuation also has a social side, though perhaps not as pronounced. In answer to the question why punctuation matters, Cook (presumably tongue in cheek) quotes a children’s author declaring, “You don’t want to look stupid!” (Vandyck 1996; cited in Cook, p. 89) There are, of course, some written situations in which lack of grammatical punctuation can lead to confusion. Clearly, the sentence “My son who lives in New York is a doctor” (as distinct from “My son who lives in Athens is a writer”) means something quite different from “My son, who lives in New York, is a doctor”. To be fair, though, the number of instances in which punctuation really makes a difference for meaning is comparatively small, which may explain why English has flopped back and forth between rhetorical and grammatical schemas (not to mention idiosyncratic usages) without causing the kind of pedagogical fuss generated by errors of grammar or spelling. Moreover, though punctuation guides abound, there is no Dr. Johnson or Noah Webster of punctuation whom we commonly take as an authority.

The social side of punctuation is best revealed in the personal statements some writers choose to make through their use of lower-case representation (think of e.e. cummings or bell hooks), profusions of exclamation marks, or, among some teenagers and young adults, intentional avoidance of commas and periods in their IMs or text messages. In some adolescent social circles, grammatical punctuation is about as cool as properly tied shoelaces.

Even among educated adult users of computer-mediated communication who are not trying to make a social statement through their writing mechanics, we are beginning to see laissez-faire attitudes towards a number of aspects of punctuation, which then are ripe to creep into off-line writing. Consider the use of apostrophes and of word division. We are all familiar with the common confusion between its and it’s. Orally, the words are homophones, so speakers are on safe ground. In writing, however, the words are distinct – that is, they should be. Some of my undergraduates tell me that when writing papers on a computer, they no longer bother to type apostrophes in contractions (as in didn’t or wouldn’t), since spell-check will automatically insert the punctuation mark for them. (The strategy obviously breaks down for grapheme strings such as <cant> or <wont>.) In a recent study of college-student instant messaging conversations, Squires (2005) found that interlocutors omitted 41% of the “required” apostrophes in contractions and possessive nouns, with male users being the worst offenders. (Note that in IM, there is no spell-check to clean up after you.)

CMC also may prove the partial undoing of word separation. An increasing number of writers seem to be uncertain whether two contiguous free morphemes
constitute a compound, a hyphenated word, or two words (is it *newspaper*, *news-paper*, or *news paper*)? Even if there were spell-check throughout CMC, the three spellings would all pass the spell-check test. What is more, at least in casual speech, all three versions sound the same – returning us to the fact that writing is increasingly representing informal speech rather than standing as a distinct linguistic form of representation. As some of my students tell me, worrying over hyphenation and compounding is so twentieth century.

The question of which morphemes constitute distinct words, hyphenated words, or compounds is hardly new in the story of English. As Cook observes (p. 94), historically, we commonly find a morphological progression from distinct words (e.g., *tea bag* – documented in the *OED* in the year 1898) to hyphenated words (*tea-bag*, documented in 1936) to orthographic compounds (*teabag*, documented in 1977). In referring to the computer world, some (though not all) publishing style sheets have moved from `<e-mail>` to `<email>` and from `<on-line>` to `<online>`, though `<off-line>` seems to be lagging behind its antonym.

Adding to the confusion are URL addresses, which, by design, do not admit spaces between words. `<Washington Boat Show>` becomes `<washingtonboatshow>`, looking for all the world like the *scriptio continua* from classical Latin. The problem is further compounded by a trend in the 1990s (regarding which Cook has a useful discussion) for commercial enterprises to compress names – often in abbreviated form – into single words. The pharmaceutical company Glaxo Smith Kline became GlaxoSmithKline, while National Westminster Bank morphed into NatWest. No wonder word division has become increasingly problematic.

Do spelling and punctuation still matter? My sense is that these graphic conventions are, as they have always been, not independent linguistic desiderata but rather reflections of community attitudes towards the larger relationship between speech and writing.

4 Redefining the speech-writing dichotomy

The written word is proliferating, thanks, in good part, to the rise of word processing and computer-mediated communication. This written turn should, I suggest, occasion our rethinking the dichotomy we have historically drawn between speech and writing. A network of factors besides computers shares responsibility for the casual, speech-like style that permeates much of contemporary writing. Among these factors are the democratization of literacy, increased social informality, and the veneration of youth culture (Baron 2003). In the present essay, we are interested in the role of technology in redefining the relationship between spoken and written language.

Even before the personal computer revolution, linguists attempting to characterize the difference between speech and writing found themselves qualifying each category with terms like “paradigmatic” or “typical”. Empirically, we all knew that formal speech had at least as much in common with “paradigmatic” writing as it did with “paradigmatic” speech, and that a note passed under the table in class (these days likely to be a text message received on a mobile phone) was as much like speech as it was like writing.
Historically, the paradigmatic relationship between the two modalities has shifted several times. Today, we increasingly find that technologies for representing speech and writing are becoming interchangeable. For example, speech-recognition software enables us to dictate to computers, which then dutifully produce written text; speech-synthesis software reads email or text messages aloud. Perhaps it is time to stop struggling to establish a line between speech and writing and, instead, to replace the exception-ridden dichotomous model with a new approach.

4.1 Shifting core and periphery

In the traditional model of writing, the core feature differentiating writing from speech has been modality (i.e., durable versus ephemeral representation). All the other features of writing (or speech) — level of formality, editing, vocabulary choice, and so on — followed derivatively.

What if we recast this conventional view by making the core issue the discourse conditions under which linguistic communication occurs? As a result, we render the choice of a spoken or written modality as the consequence of those discourse conditions, not the generative cause of particular forms of language that we normally associate with speech or writing. Such a reconceptualization grows out of a functional (rather than structural) approach to linguistic analysis.

We know that human language (be it spoken or written) can be used for a range of functions. Years ago, Roman Jakobson, drawing upon an earlier schema laid out by Karl Bühler in 1934, suggested that discourse serves one of six functions: referential, emotive, poetic, conative, phatic, or metalingual (Jakobson 1960). In the ensuing years, other linguists (e.g., Halliday 1970; Hymes 1974) have argued that the kinds of language choices we make are shaped by the function of our particular discourse, which in turn is influenced by the interlocutors themselves. Participants in a spoken or written exchange may vary widely in their demographic characteristics and in their relationship to one another: in gender, age, educational level, cultural assumptions, social standing, or level of familiarity. Before we construct actual linguistic messages, we take these sorts of variables into account. We speak differently to pets than we do to clergymen. We write one way to our children off at college and another to government officials.

Alongside these traditional functional and interpersonal variables, technology has an additional impact upon the way we choose to formulate language. Take the issue of message durability. When, in 1876, Alexander Graham Bell’s telephone began replacing the telegraph for many business dealings, complaints emerged that unlike telegrams, phone calls left no lasting trace. Bell’s arch rival, Thomas Alva Edison, invented the phonograph as a device for providing a tangible record (originally, impressions on a waxed surface) of the equivalent of a telephone conversation (Gitelman 1999). Today, the durability question often shapes our decision whether to leave a voice mail message or to send an email.

Another technologically-based decision is whether we want the ability to edit our communiqués. In principle, any written medium admits of editing, while speech does not. In practice, of course, the combination of technology and social presuppositions about how that technology should be used may blur these assumptions. Do you run spell-check on a document prepared with a word-processing program? (Initially, most students did
not; today, the default setting on word-processing programs is often to make corrections automatically.) Do you fire off an email before reading what you have written? (Many people initially did – and still do, though emergence of the “Draft” option in email programs enables us to save an initial formulation and emend it at a future time.)

The list of technological (and social) desiderata goes on. For example, does the technology we choose limit message length? Many voice mail systems restrict the caller to a minute or two of speaking. Text messaging systems for mobile phones typically allow only 160 characters per message, though by social convention – coupled with the awkwardness of pecking out messages with your thumb on a small numerically-based keypad, text messages tend to average around 70 characters. A second example: Do senders wish to capture their interlocutor’s undivided attention? If so, a face-to-face spoken conversation is best, with letters sent by snailmail a close second. As we will see in a moment, language technologies – especially those that are computer-based – weaken the interlocutor’s imperative to pay attention.

We can think about the variables we have been discussing (functional, social, and technological) as creating alternative discourse frameworks from which potential speakers or writers may choose. Instant messaging, for example, is well-suited to chatting with a co-worker sitting a few cubicles over, while wholly inappropriate for sending condolences. What I am suggesting is that if we begin by looking at the conditions (human and technological) upon which communication is built, we find that the choice of spoken or written modality follows from those conditions rather than the other way around.

Recasting our thinking about the core and periphery of linguistic discourse is especially important in times, such as our own, when both social norms (e.g., the present cult of informality) and rapidly evolving technologies are rendering traditional notions of linguistic modality inadequate to describe contemporary discourse. Nowhere is the need for such theoretical reorientation more obvious than in the emergence of what we might call “language under the radar” – an increasingly popular form of communication that juxtaposes various assumptions about the nature of speech and writing in a way that defies traditional categorization.

4.2 Language ‘under the radar’

A hundred years from now, when linguists try to determine the most important influence that technology has had upon spoken and written language since the invention of the telephone, they may well conclude it is the development of platforms that enable interlocutors to control their terms of linguistic engagement. Consider the telephone. Once phones found their way into businesses and private homes, users gradually came to recognize they could ignore the ring (and the caller), if they so chose. Today, our options are vastly expanded through the technologies of caller ID, call blocking, and the ubiquitous presence of answering machines and voice mail. The intended interlocutor may respond at a time of his or her choosing, or even not at all. Just so, callers with access to a menu of telephone features (common in business and academia) can use an express messaging function allowing them to leave messages without the target phone even ringing.
Opportunities for choosing our own terms for linguistic interaction are even wider when it comes to durable messages transmitted via the Internet. For example, computer-mediated communication (most typically email) enables us to initiate linguistic exchanges with individuals to whom we ordinarily would not have face-to-face access. Included in this class might be university presidents, government officials, published authors, or established experts in their fields. (I once received an email request from an undergraduate in Ohio for help with his linguistics homework.) Recipients of such electronic missives always have the option of ignoring them, but I will wager that a surprising number of queries that fall outside of the normal social order receive some sort of response.

Even with people we know, CMC affords users the ability to increase their control over when and how they say what to whom. If Miranda has a question she needs to ask Michael, rather than risk interrupting him (by phoning or showing up in his office), these days Miranda shots Michael an email, enabling him to respond at his convenience. Colleagues who are lawyers or business executives tell me that during conference calls, it is common for people on the call to simultaneously be emailing or instant messaging other colleagues also on the call regarding what topics need to be broached or avoided. In my own experience, I find myself sending email to students in the wee hours of the night (e.g., to request a change of meeting time for the next day), while I would not dream of calling them on the phone.

But as nearly all of us can attest, the most common use we make of Internet-based technology in controlling the ways we linguistically interact with one another is through multitasking. Who among us has never, at some point, read or composed an email while simultaneously talking on the phone? These days, multitasking while using a computer is being raised to a high art by teenagers and young adults.

Adolescents and college students are increasingly seeing computer-mediated language as just one of many activities with which they are occupied while sitting before their computers. Recently my students and I administered to a group of 158 American undergraduate students an online questionnaire regarding multitasking behavior. We asked about both computer-based and “other” activities they were engaged in at the same time they were viewing the instant message via which our questionnaire arrived on their screens. The results (Baron, Clem & Rabinovitz In Prep.) suggest that multitasking while doing IM is extremely common. With respect to computer-based multitasking:

- 70.3% were engaged in other Web activities (e.g., surfing the Internet)
- 47.5% were using a computer-based media player
- 38.6% were doing word processing

As for additional off-line activities,

- 41.1% were holding face-to-face conversations
- 36.7% were eating or drinking
- 28.5% were watching television

- 21.5% were talking on the telephone
Perhaps most surprising was the number of online conversations that respondents indicated they were having simultaneously. While the average number of IM conversations per user was 2.67, individual numbers ranged from 1 to 12. How can a single person “talk” to 5 or 6 (much less 12) people at the same time? It is difficult to imagine an individual carrying on half a dozen simultaneous conversations face-to-face, all on different topics. Yet in subsequent focus groups, students maintained that multitasked IM conversation was really not very difficult since, as one student put it, IM conversation is “language under the radar”. That is, while the main activity at hand may be purchasing an airline ticket online, speaking face-to-face with a friend who has stopped by, or working on a history paper, people using IM attend to one or another of the multiple conversations they are conducting when they feel like it. IM conversations are more like background music than the primary focus of one’s attention. Conversations may lie dormant and unnoticed (“under the radar” of a user’s active awareness), only becoming dynamic when the user chooses.

Since members of the student IM community share assumptions about IM conversation being “backgrounded” rather than “foregrounded” activity, interlocutors generally do not become impatient if their messages fail to receive immediate responses. In fact, when I asked a group of students if they ever sat down at their computers and did nothing but engage in a single IM conversation, they looked at me as if I had taken leave of my senses. Such targeted behavior, they informed me, would be “too weird”.

The point is not to condemn or condone multitasked behavior in general (or multiple simultaneous IM conversations in particular). What matters is that users who are adept with the newest forms of written language feel empowered by the control computers give them over conditions for communicating.

Teens and young adults are also masters of the fine art of gathering – or transmitting – information without directly corresponding with others. Students commonly read the instant messaging profiles (essentially, short, hip, biographical statements) or away messages (posted when an IM user is ostensibly not at his or her computer) in order to check up on the doings, whereabouts, or mindsets of people they know but with whom they do not wish to communicate directly at the moment. Similarly, with the explosion of blogging, a growing number of readers are discovering intimate details of the lives of people they will never meet and providing their own particulars for unknown audiences in return. As in the case of multitasking behavior while participating in IM conversations, users control their creation and processing of language. That is, they communicate “under the radar” rather than letting linguistic exchanges occupy their full attention.

4.3 The future study of written English

Computer-mediated communication (especially instant messaging) encourages us to rethink conventional dividing lines between speech and writing, along with attendant assumptions regarding the rules of linguistic engagement. Part of the reason CMC has looked like a linguistic hodge-podge is that it is an informal (think speech) but durable (think writing) mode of representation. However, once we begin to acknowledge the amount of control that CMC users have over the shape of their messages and the
conditions under which they undertake encoding and decoding activities, the resulting communiqués seem far less chaotic.

My attempts to recast the speech/writing discussion are not meant to imply that we should abandon efforts to understand speech and writing as modalities in their own right. As long as children learn to talk and fluent speakers converse with one another face-to-face, we will need to study the inner workings of spoken communication. Just so, as long as children compose letters to Grandma and authors write essays and novels, written language is worthy of study 

Who needs to think more seriously about the English writing system? Linguists, obviously, but also native and non-native speakers alike who are interested in understanding the structural and historical sources of the ways we durably encode the English language. Vivian Cook’s *The English Writing System* provides a solid introduction for all of these enterprises. I agree with Cook that we need to go beyond only discussing writing in the shadow of spoken discourse. Yet, as I have attempted to argue in this essay, it is equally important for us to acknowledge that writing itself evolves. Our models for understanding writing – and, yes, its relationship to speech – also need to change with the times.

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