THE RELATION BETWEEN
WRITTEN AND SPOKEN LANGUAGE

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Our review is divided into two sections, the first prepared by Chafe and the second by Tannen. The first covers investigations of structural differences between written and spoken language. The second deals with contextual influences on the creation and use of these two linguistic "modes."

COMPARISONS OF WRITTEN AND SPOKEN LANGUAGE

Linguists have been late to realize that differences between spoken and written language are worth their attention. For more than two thousand years the systematic study of language in the West focused largely on language as it was written, a natural enough bias. Language in its written form can be collected, stored, examined, manipulated, and analyzed in ways that were until very recently impossible for spoken language. With the coming of modern descriptive linguistics the picture was completely reversed. Some of the most influential linguists of the first half of this century, including Saussure (201), Sapir (200), and Bloomfield (33), went out of their way to emphasize the primacy of spoken as opposed to written language, relegating the latter to a derived and secondary status.

Meanwhile, however, there were scholars outside of linguistics who were paying attention to an obvious third possibility: that speaking and writing both have their own validity. The earliest systematic comparisons were undertaken
by people in speech departments, who traced their interest to a statement by Aristotle: "It should be observed that each kind of rhetoric has its own appropriate style. The style of written prose is not that of spoken oratory." Of course when they thought of spoken language both Aristotle and his successors in this century had in mind public speaking (see 110 for a classicist's discussion). This limitation was present in the early call for research by Woolbert in 1922 (261), and in its early implementation by Borchers in a 1927 dissertation (34, 35). Borchers compared the written and spoken language of ten famous Englishmen and Americans, including Emerson, Gladstone, and Lincoln. What she compared, of course, were the literary works and written speeches of these men, but even with this handicap she found that the speeches contained more imperatives, interrogatives, exclamations, references to the audience and situation, and first and second person pronouns; these are findings not out of line with more recent tape-recorded data.

Other studies at about the same time were taking place in the field of education. In 1929 Lull (154) reported a study in which children in grades 1–8 were asked to write and speak on any topic from history, geography, or nature study. (The spoken language was recorded stenographically.) What the children produced was evaluated by teachers for content, grammar, and diction, and rated as to whether the writing or the speaking was superior. It was found that by the first half of the fifth grade, pupils began to "write better than they speak." A study by Bushnell in 1930 (43) asked 10th graders to speak on "how I learned a lesson" and "a good plan that went wrong," and then 12 days later to write on the same topics. Bushnell found that the written themes were rated higher in thought content and sentence structure, and contained fewer grammatical errors.

Research of this kind was quiescent during the 1930s, but two more University of Wisconsin dissertations, by Kaump (143) and Sterrett (219), appeared in 1940 and 1941. Two interrelated studies were reported by Fairbanks (82) and Mann (155) in 1944. Fairbanks collected dictaphone recordings of people talking about proverbs, while Mann asked people to write the stories of their lives. The results were analyzed for type-token ratios (higher in writing than in speaking) and the frequency of parts of speech (with writing found to be higher in nouns, adjectives, prepositions, and articles; speaking higher in pronouns, verbs, adverbs, and interjections).

There was another hiatus until the mid-1950s. In 1957 Harrell (116) reported an investigation of 9-, 11-, 13-, and 15-year-olds who were asked to write about what they had seen in a film, and later to talk about another film. Their language was analyzed for the frequency and use of subordinate clauses, of which more were found in the written language. The writing contained more adverbiacl and adjectival clauses, while the speaking had more nominal clauses. A New York University dissertation by Green (109) sur-
veyed a number of linguistic features in spoken and written samples obtained from college students. Moses (166) asked college students to write and then speak on both a pleasant and an unpleasant topic. He found that writing, women, and pleasant topics produced more lexical diversity. In France, Fraisse & Breyton (90) asked students to speak and write about a set of pictures, finding that the number of words and the verb/adjective ratio were higher in speaking, whereas the type/token ratio was higher in writing.

In the early 1960s Blankenship (27) recorded campus lectures by Allan Nevins, Margaret Mead, Frances Perkins, and Adlai Stevenson and compared the language of their lectures with that of their writings. She found little difference between the speeches and the writings with respect to sentence length or complexity, although "linguistic differences in the oral and written passages of individual speaker-writers tended to vary from few for Stevenson to many for Mead." Her study has often been cited as conflicting with other findings, but it seems hardly surprising that speeches prepared for a university audience and broadcast over the radio should show much in common with written language.

Drieman (77) asked people to talk and write about pictures, and found that their written language had shorter texts, longer words, more attributives, and a more varied vocabulary. Horowitz & Newman (137) asked undergraduates to talk and write about equivalent topics, and found that spoken language is more facile, producing longer stretches of language per unit of time, more repetition, and more elaboration. Horowitz & Berkowitz (135) compared handwriting, typing, and stenotyping and found that the faster the mode of writing, the more spoken-like the language, although all forms of writing remained significantly different from speaking. Later the same authors (136) obtained spoken and written reproductions of "The War of the Ghosts" (8) and found the spoken versions to be longer and less diverse, with more subordinate ideas.

The most prolific writer on this subject in the 1960s was DeVito. To obtain data for his 1964 dissertation (71) DeVito asked ten professors of speech to give him articles that represented their written style at its best, and then interviewed them on these articles. The same data were exploited further in a series of follow-up studies. DeVito found that written language has greater lexical diversity, more difficult words, more simple sentences, and greater idea density (72); more nouns and adjectives, fewer verbs and adverbs, and a lower ratio of verbs to adjectives (76); that it is more abstract, containing fewer finite verbs and more abstract nouns (75); and that spoken language contains more self-reference, "pseudo-quantifiers," "allness" terms, qualification, and "consciousness of projection" (74). He also provided some useful speculations on the reasons for his various findings (73).

At about the same time, Gibson et al (95) asked beginning speech students
to write a theme and give a five-minute speech, analyzing the results in terms of Flesch’s readability formulas (89) as well as type-token ratios. They found that spoken language is more readable, more interesting, and has a simpler vocabulary. O’Donnell, Griffin & Norris (171) showed two films to children in grades 3, 5, and 7 and asked them to speak and write about what they had seen. They analyzed the results in terms of T-units (139) and transformations, and found that writing has more sentence-combining transformations, at least for 5th and 7th graders. Preston & Gardner (190) used factor analysis to look for relations between speaking or writing fluency and measures of verbal ability and personality. The mid-1960s also saw two dissertations on spoken and written syntax, one by Stolz (220) at the University of Wisconsin and one by Golub (101, 102) at Stanford.

In the early 1970s an article by Portnoy (189) provided a good summary of earlier research, and reported a study in which 22 undergraduates were asked to talk about an interesting experience and then write about another such experience. Interested in comprehensibility, Portnoy obtained cloze scores for this material and found that people who use short words are more comprehensible when speaking, whereas people who use long words are more comprehensible when writing.

In the mid-1970s a second study by Blankenship, this time focused on individual differences (28), was the most elaborate to date in the variety of both its data and its analytic dimensions. She looked at six kinds of language ranging from spontaneous conversation to formal writing, and analyzed her samples with respect to such features as word and sentence length, type-token ratios, cloze scores, extent of qualification, proportions of adjectives and prepositions, and “psychogrammatical” factors like those investigated by DeVito (74). Her results were complex, and were discussed for each of the six individual subjects.

During this period O’Donnell (170) published a study of the spoken and written language of a single unidentified individual characterized as an “author, editor, lecturer, and television host.” He found that the written sample contained more gerunds, participles, attributive adjectives, passives, and modal and perceptive auxiliaries, while the spoken sample had more noun clauses, infinitives, and progressive auxiliaries. Blass & Siegman (29) asked nursing students to speak, dictate, and write answers to interview questions, some of which were personal and some impersonal. They found that the spoken answers showed faster reaction times and production rates, greater verbal productivity, higher silence quotients, and lower passive verb ratios. An Ohio State dissertation by Felty (84) also appeared at about this time. In 1976 Poole & Field (188) published a study of Australian students from middle-class and working-class backgrounds who were interviewed on their school experiences and asked to write a prediction of their lives after leaving
school. The authors found the spoken language to be more complex in terms of embedding, with more adverbs and personal pronouns, while the written had more adjectives and complex verb structures.

In a 1978 study reminiscent of Blankenship (27), Einhorn (80) examined recorded speeches of ten famous men, among them Roosevelt, Eisenhower, Kennedy, and Nixon, and compared their writings on the same subjects. She found that the speeches contained more personal references, shorter "thought units," more repetition, and more monosyllabic and familiar words.

In 1979 Cayer & Sacks (46) reported on eight college freshmen from remedial reading sections who had been asked to read a short statement on a controversial topic, to discuss it orally, and then to write about it. They counted such features as adjective and adverb phrases, and found more of them in the writing than in the speaking. They also noted that these "basic writers" had not learned to incorporate complex structures into the subjects of their sentences. In general they felt that they had found some evidence of basic writers' reliance on oral strategies in writing.

A study by Price & Graves published in 1980 (191) looked at sex differences in the spoken and written language of 8th graders. They found no significant sex differences in "syntactic maturity" (number of words, T-unit length, clause length, and subordination ratio), but the boys deviated from "standard usage" more than the girls. They also found that the boys produced more words when they were speaking, the girls when they were writing.

We should not leave the impression that all linguists were oblivious to differences between spoken and written language throughout this period. In Europe the pioneer in this area was Vachek, who wrote on the subject as early as 1939 (245–248). In 1962 Martinet provided a discussion of spoken-written differences in French verb forms (156, pp. 122–33). The first modern American linguists to take written language seriously seem to have been Gleason (98, 99), Allen (3), and Householder (138, pp. 244–64). Allen, for example, asserted that "written English is one of the systems of English—a separate dialect, if you will—with its own rules, its own conventions, its own signals."

Perhaps the first empirical comparisons by linguists were those conducted by faculty and students at the University of Southern California and published in 1977 (145). Bennett (18) and Kroll (147) used data from freshman composition students who were asked to tell about an event in which they nearly died, and then to write an account of the same event. Bennett found that the written narratives contained more passives but fewer progressives. Kroll analyzed occurrences of subordination, finding more in writing than in speaking, but also providing a thoughtful discussion of the complexities of such an analysis. Ochs (172, originally published in 145) did not deal with the spoken-written distinction as such, but suggested that certain communicative strategies used by children are retained by adults in their unplanned (typically
spoken) language, even while their planned (typically written) language makes use of strategies acquired later.

In 1979 Halliday (114) wrote that "spoken language is characterized by complex sentence structures with low lexical density (more clauses, but fewer high content words per clause); written language by simple sentence structures with high lexical density (more high content words per clause, but fewer clauses)." These somewhat surprising conclusions seem not to have arisen from a systematic quantitative study of spoken and written samples, but from isolated examples. Nevertheless, Halliday's assertions were investigated further and at least partially confirmed by Beaman (see below).

Several quite different surveys of this topic were published in the early- to mid-1980s. Rubin (199) devised a taxonomy of ways in which different forms of speaking and writing may differ along dimensions that are either medium-related or message-related. She noted particularly the effects of these differences on children who are learning to read. In a volume devoted to speaking-writing relationships (148), Schafer (202) surveyed the results of linguistic analyses, concluding that, for teachers of composition, the distinction between dialog and monolog is more useful than the distinction between speaking and writing. [The same volume contained an interesting retrospective discussion by Barritt (6) of differences between the experiences of writing and speaking.] Akinnaso (2) contributed an excellent summary of the spoken-written comparisons made up to 1982. He concluded with a set of questions designed to "reframe or raise new questions," and called for a redirection of "comparative studies of speech and writing toward interesting theoretical and pedagogical problems" that would "wean them from bondage to quantitative differentiation of tokens." A selected, annotated bibliography of the field was prepared by Liggett (152). Cicourel (57) included a section on spoken vs written language in a recent Annual Review of Anthropology article on "Text and Discourse."

In 1982 a volume edited by Tannen (229) contained several papers that dealt with specific differences between spoken and written language. One, by Chafe (48), was based on a study that compared the conversations, lectures, letters, and scholarly writings of 20 academics. It distinguished a set of linguistic features associated with the "fragmentation vs integration" dimension from a set of features associated with the "involvement vs detachment" dimension. A series of subsequent writings were based on the same study (49–53); see also works coauthored with Danielewicz (55, 70), and the dissertation by Danielewicz (69). Also in the Tannen volume were two papers on spoken-written differences in languages other than English: one by Clancy on Japanese (58), and one by Li & Thompson on Chinese (151).

In 1984 Halpern (115) reported on a different approach, examining specific changes that were made when some tape-recorded interviews were edited for
publication. She found especially that editorial changes were made when the spoken versions exhibited "parentheticalness," incomplete parallelism in organization, tense switching, and unclear pronominal references.

Beaman (14) conducted a detailed study of coordination and subordination in spoken and written language accounts of a film, finding some justification for Halliday's claim that spoken language is in some ways more complex than written. She stated an increasingly popular opinion that "differences in syntactic complexity between the spoken and written modalities which previous studies have found often turn out to result from differences in the formality and purpose or register of the discourse rather than true differences between spoken and written language." In looking further at subordination in formal and informal discourse, Thompson (241) concluded that the notion "subordinate clause" is itself suspect, as elaborated further in Haiman & Thompson (113). In the same spirit Chafe (54) attempted a new look at the special nature of clause combining in spoken language.

A careful study by Redeker (194) controlled for the effects of genre by asking subjects to speak and later write on the same or a highly similar topic. This study was particularly focused on testing Chafe's scales of integration, fragmentation, involvement, and detachment, and Redeker found that the first three discriminated well between her spoken and written data, whereas the detachment scale (e.g. the use of passives and indirect quotes) was "apparently rather unreliable and/or too heterogeneous."

Hidi & Hildyard (131) asked children in grades 3 and 5 to talk or write about whether children should be allowed to choose what they watch on television, and to complete a narrative for which the researchers provided an introduction. Analyzing these materials for semantic well-formedness, cohesion, and discourse structure, they found clear differences between the two genres (opinion and narrative) but no differences between speaking and writing. They concluded that "writing per se is not the primary source of children's frequent problems with written assignments." Hildyard & Hidi (133) then looked at the production as well as the recall of spoken and written narratives by third, fifth, and sixth graders. They found that modality made little difference to the younger children but that by grade 6 children "begin to capitalize upon some of the unique features of [writing], with the result that written protocols appear to be better structured than do oral protocols."

Beaugrande (15) asked his students to talk and write about a silent Chaplin film. He collected examples of a number of typical spoken language features that might carry over into student writing, such as fillers, hedges, restarts, repetitions, etc. He used such results "in training college students to recognize the influences of their everyday speech on their writing and to revise accordingly."

Although we have emphasized studies conducted in the United States and
Canada, we would be remiss in neglecting the detailed studies of specific differences between spoken and written English that have been conducted in Scandinavia, and especially in Sweden. A conspicuous product of such research is the volume edited by Tottie & Bäcklund (243), a collection of papers based on the London-Lund Corpus of Spoken English and the Lancaster-Oslo-Bergen Corpus of Edited (written) British English. Among the spoken-written comparisons in this volume were those by Altenberg (4) on contrastive links between clauses, by Bäcklund (5) on “conjunction-headed abbreviated clauses,” by Hermerén (130) on modality, by Tottie (242) on adverbials of focusing and contingency, by Aijmer (1) on the use of “actually,” and by Stenström (218) on the use of “really.”

By far the most extensive quantitative investigation of spoken-written language differences has been the recent stunning research of Biber, beginning with his dissertation (21), extended in a series of articles (22–24), and culminating in a book (25). Like the Swedish scholars, Biber made use of the London-Lund (spoken) and Lancaster-Oslo-Bergen (written) corpora, but he analyzed the distribution of 67 different syntactic and lexical features in several hundred text samples representing 23 different genres. Applying factor analysis to this very large data base, he found “no single, absolute difference between speech and writing in English; rather there are a number of ‘dimensions’ of variation, and particular types of speech and writing are more or less similar with respect to each dimension.” In his latest work he has identified six such dimensions, characterized in such terms as “involved vs information production,” “narrative vs non-narrative concerns,” “explicit vs situation-dependent reference,” “overt expression of persuasion,” “abstract vs non-abstract information,” and “on-line information elaboration.”

Should we then conclude that all this fuss has been in vain, that whether one speaks or writes really makes no difference in the language produced, that there are any number of speaking and writing styles that hopelessly overlap? One way to view this situation is in terms of language evolution. Pawley & Syder (185) have looked at large samples of conversational spoken language, mostly from Australia and New Zealand, and have cataloged many of its distinguishing features. Comparing these features with literary language, they have suggested that the many differences represent adaptive variation to the very different conditions under which conversation and literary production typically take place.

It does seem plausible to suppose that different conditions of production as well as different intended uses foster the creation of different kinds of language. It is also worth giving further thought to the idea that ordinary conversation is the prototypical form of language, the baseline against which all other genres, spoken or written, should be compared. Conversation is, after all, the one kind of language that all normal people produce quite
naturally most of the time; all other kinds, whether spoken or written, require some special skill or training. Literacy, where it exists, has provided fertile soil for the growth of other genres, among them literate forms of speaking as well as colloquial forms of writing. Under these circumstances, we should not be surprised to find that there is no single feature or dimension that distinguishes all of speaking from all of writing. But there is still much we can learn about the cognitive and social processes most typically associated with speaking on the one hand, or writing on the other; about the effects these processes are most likely to have on the language itself; and also about the ways in which less typical cognitive and social circumstances may blur or even sometimes eradicate the differences.

WRITING AND SPEAKING IN CONTEXT

Insight into the relation between spoken and written language is often embedded in research on literacy, which has recently burgeoned to include numerous collections, often from a developmental or educational perspective (32, 44, 60a, 64, 92, 150, 176, 203, 239), and at least one bibliography (205). There are also collections (45, 67, 93, 94, 168, 256) and a forthcoming bibliography (254) on written language, and at least one on oral and written language (186), but only two collections (229, 231), of which one (231) includes a bibliography, concerned with the relationship between spoken and written language.

Some sources on literacy and on written language are included here, since such research often assumes, as Stubbs (222, p. 35) states, that “central to any theory of literacy is an understanding of the relation between spoken and written language.” In contrast, analysts of spoken language rarely mention written language. Similarly, a number of studies investigate the influence of speaking on writing or reading (7, 70, 83, 146, 193, 255), but fewer investigate the influence of writing on speaking (65, 79, 142, 149).

An influential and increasingly controversial body of literature concerns orality and literacy. Inspired by the seminal work of Goody & Watt (106) and Havelock (117), what has been called a Great Divide hypothesis is generally attributed to three sources: classicist Ong (177–183), anthropologist Goody (103–105), and psychologist Olson (175). A review of this research is beyond the scope of our topic and is presented elsewhere by Cicourel (57), Heath (123), Tannen (227), and at length, if tendentiously, by Street (221). However, much of the work that is our concern was inspired by orality-literacy research, or provides, as Bauman (13, p. 9) observes about the ethnography of oral literature, a corrective to it. Briefly, the orality-literacy hypothesis posits that writing makes possible verbatim memory and abstract and sequentially logical thought, and that written discourse is decontextualized or au-
tonomous (144), whereas nonliterate culture is associated with constructive memory and concrete and rhapsodic thought, and that spoken discourse is context-bound. Correctives have been advanced from cognitive, ethnographic, philosophical, and rhetorical or linguistic perspectives.

The cognitive corrective addresses itself to claims that literacy makes possible modes of thought and memory that are impossible for nonliterate. Bright (40), Finnegan (86), and Sherzer (212) maintain that verbatim memory exists in nonliterate societies. Scribner & Cole (210, 211), based on a study of the Vai of Liberia, many of whom are literate in one or more of three different scripts, conclude that cognitive skills associated with literacy are limited to those specifically entailed by the various scripts.

Others, such as Bleich (31) and Bruner (41), have argued that if nonliterate people do not perform on experiments in a way that experimenters feel exhibit abstract or logical thought, it is not because they are incapable of such thought but because they do not deem it appropriate to talk in that way in such a situation. Thus the cognitive corrective shades into the ethnographic one.

The ethnographic corrective holds that the principles and concerns of the ethnography of speaking should be applied to the study of writing [Basso (9)], reading [McDermott (157)], and literacy [Szwed (223)]. Most fully developed and frequently cited is the work of Shirley Brice Heath (118–129) exploring the ways written materials are integrated into social interaction. Heath, like Graff (107), Ogbu (174), Pattison (184), and D. Smith (215), demonstrate that the dominant view of literacy as encoding and decoding skills belies its true nature and complexity, and that the acquisition of such skills does not ensure economic advancement as it is generally believed to do.

Studies have examined the transformation of discourse between spoken and written modes in particular settings. For example, Cicourel (56, 57), Frankel (91), and Wallat & Tannen (253) compare talk exchanged in a medical setting with what is written in medical records, showing a complex and discontinuous relationship between them. Walker (252) shows that the "verbatim" transcript of a deposition, which becomes the basis for legal decision-making, cannot capture the meaning of oral testimony but is differentially interpreted depending upon the ad hoc transcription conventions variably employed by court reporters.

Writing is a technology; scholars point out that technology is not neutral. Coulmas (63, 66) is concerned, for example, with the effect different writing systems have on written language and the relative distance between spoken and written language. The philosophical corrective, however, demonstrates that using particular writing systems, including computing, and using writing in general—that is, literacy—deeply affect world view and being in the world.
Drawing on his early field experience in Burma, Becker (16) recounts that his Burmese teacher, seeing him transcribe phonemically, objected and insisted he learn and use Burmese script. The young linguist maintained that transcription systems made no difference, but he learned Burmese writing to appease his teacher. Becker then explains how much difference he later learned it made. The Burmese writing system reflects a root metaphor organizing Burmese, like Balinese, culture: the figure of a center surrounded by four points. Replacing the Burmese writing system, so deeply connected to Burmese “noetics,” with a linear script, so far from making no difference, undermined the entire framework of Burmese learning, breaking up what Bateson (10) called the pattern that connects.

Scollon & Scollon (207, 208) make a similar argument for literacy itself. They demonstrate that Alaskan Athabaskans experience literacy as “a crisis in ethnic identity” (208, p. 53) because it requires self-display that is only appropriate when one is in a position of dominance. In essayist prose, author and audience are fictionalized. Athabaskans, however, prefer silence when the relationship between interactants is unknown. In order to write, Athabaskans must adopt discourse patterns—and a reality set—associated with English speakers. To read as schools wish them to read requires them to sacrifice the Athabaskan human right to participate in sensemaking (209). Similarly, Brandt (37) discusses the resistance of Native Americans in the Southwest to writing as to recording—that is, to relatively permanent means of data storage.

Based on observations of the integration of written materials in the homes of two working class Irish families in New York City, Varenne & McDermott (249) argue that school and home are cultural constructs that “arrange” that some children will succeed and others will fail at learning to read and write. [Elsewhere McDermott (158) makes a similar point about spoken language ability.] The widely accepted account of such success and failure as resulting from individual ability or effort is a cultural means of affirming a philosophy of individualism.

Bowers (36) sees the philosophy of individualism at the heart of “computer literacy.” Like Smith (216), he argues that a conception of knowledge as information processing is a root metaphor that Bowers traces to 19th century Western thought, separating the knower from the known and seeing the individual as autonomous, rational, and self-directing. Computing amplifies and privileges digital over analog thinking, immediacy over duration and history, facts over ideas.

For Street (221), the philosophical corrective becomes ideological in the political sense. Street rejects the “autonomous” model that associates literacy “with ‘progress,’ ‘civilisation,’ individual liberty and social mobility” in
favor of an "ideological" one that questions these assumptions and "investigates the role of such teaching in social control and the hegemony of a ruling class."

These broad issues have significance for understanding both language and linguistics. Linell (153) observes that much modern linguistics reflects a conception of language derived from written language. Hopper (134) makes a similar observation for the very notion of a sentence, as does Traugott (244) for the concept of standard English.

The progression of Tannen's work provides an example of the development of interest in spoken and written language from the inspiration of the orality-literacy framework to the complex relationship of spoken and written genres in interaction. Tannen (226) first found that uses of language associated by Goody & Watt (106), Ong (177–180), and Olson (175) with oral and literate tradition corresponded to differences in narratives told by Greeks and Americans who had seen the same film. Approaching the task as a storytelling, the Greek speakers tended to select a theme and include only those details that contributed to it, use culturally familiar explanations and reconstructions, personalize, philosophize, and analyze the film as an allegory. Approaching the task as a test of memory, the Americans tended to strive for accurate recall of details and temporal sequence, critique the filmmaker's skill, and analyze the film as an artifact.

Tannen's was one of a number of studies inspired by Cook-Gumperz & Gumperz (62), who showed that strategies associated with writing could be found in spoken language. Others include Gilmore (97), Gumperz et al (112), and Michaels and her coauthors (161–164), who suggested that certain ways of speaking could be a preparation for expository writing, and that strategies associated with orality could be found in writing, partially accounting for the failure of Black children at school.

Combining her findings on Greek and American narrative with her work on New York Jewish conversational styles and on prepatterned expressions in American English and modern Greek, Tannen (225, 227) next posited an oral/literate continuum with casual conversation at one end and expository prose at the other. Later, to avoid the polarity suggested by a continuum, she adopted the terms oral and literate strategies (228). In all these articles, she rejected the oral-literate dichotomy as a determiner of linguistic form.

The terminology oral and literate, however, reinforced the dichotomy even as the exposition denied it. Subsequently, Tannen (232) shifted to the notion of relative focus on involvement. Comparing spoken and written narratives in English and modern Greek (230), she found that Greeks more than Americans and speakers more than writers tended to interpret elements in the film, and the linguistic means of interpretation could be understood as a way of acknowledging speaker/audience involvement. Finally, Tannen (235, 237)
turned to investigating a variety of ways of creating involvement in a variety of genres.

The expanding of types of discourse studied to include genres (or text types) other than conversation and expository writing—that is, types Heath (126) calls the middle groups of the continuum—is a promising and exciting development. Among discourse types recently and currently studied are formal spoken lectures (100) and papers “read” at scholarly conferences (237); personal letters (20, 167); diaries (213); notes passed in class (214, 235); computer dialogue (26, 78, 81, 111, 192, 198, 206); oral ritual (2a, 48); oral poetry (86, 87, 197); songs (141); lyric poetry (259); transcription (173, 250, 251); translation (262); the writing of newly literate people (19, 165); and dialog journals, a kind of written conversation in which journal entries are regularly responded to in writing (132, 214, 217).

Describing these and other genres suggests parameters by which discourse takes its form: formal vs informal, monologic vs interactive, public vs private, and the range of patterns associated with discourse of a recognizable type—in Goffman’s terms, its frame. Becker (17) sees the coherence constraints accounting for discourse as a set of relations: structural (parts to wholes), generic (current text to prior text), medial (text to medium), interpersonal (text to participants), referential (text to Nature), and silential (what is said to the unsaid and unsayable). Shuman (213) suggests proximate and distant orientations as motivating linguistic choices. Tannen (233–236) sees different patterns of similar linguistic resources (for example, repetition, narrative, constructed dialog, details, and imagery) as means of drawing on and creating differing degrees of interpersonal involvement.

In comparing spoken and written conversational narratives, Tannen (228) discovered a pair of narratives that, alone among the more than 40 pairs analyzed, did not fit the expected pattern. The written version was longer rather than shorter, and contained more rather than less imagery, repetition, and other features Chafe (48) had found in conversation. The reason was that this speaker, when asked to write the story she had told in conversation, wrote a short story, a piece of creative fiction. This suggested that the language of written fiction shares many features with the language of spoken conversation (Chafe’s involvement features), at the same time that it shares other features (those Chafe identified with integration) with expository written prose. This study raised the issue of the relationship between the language of ordinary conversation and the language of literature, both spoken and written. A review of research on this topic would constitute a separate chapter [for brief reviews see Burton (42), and Tannen (236)], but it is worthy of mention that once again the dichotomy blurs: conversation exhibits the complexity and patterning frequently studied in literary texts, though often differently realized and always differently framed. Those who have investigated the relationship
between conversation and literary discourse include Bright (38, 39), Fish (88), Green (108), Polanyi (187), Rosen (195), Ross (196), Tannen (233, 236, 238), and Widdowson (257, 258).

Crucial in comparing discourse in a variety of genres is the communication of emotion. Rosen (195) observes that narrative is associated with emotional response, and both narrative and emotion are generally considered inappropriate for scholarly discourse. Rosen cites Gilbert & Mulkay (96) on the discourse of scientists in a variety of genres: The intense excitement evident when scientists told of their discoveries was hidden in scientific writing. Similarly, as Tannen (235) discusses, Mary Catherine Bateson (12) concluded that in order to present the proceedings of an academic conference in a way that captured its significance, she had to edit in rather than edit out emotion, and this required using fictional techniques. The resulting book (11), a hybrid genre, is far more readable and understandable than a conventional conference proceedings.

A recent movement within American Indian ethnopoetics concerns the relationship between the spoken, the written, and the literary. Tedlock (240) suggests that American Indian narratives are poetry because they are structured in lines as marked by intonation and grammatical particles. Hymes (140) concurs, but suggests that verse rather than line structure is crucial. Bright (38, 39) and McLendon (159) follow suit; Woodbury (260) discovers such poetic structuring in Native American conversation. Tannen (238) suggests that line and verse structure characterizes all spoken discourse, corresponding to the intonational and episodic chunking Chafe (47) has demonstrated in spoken narrative. It is not that narratives or conversations are poetry but that poetry uses line and verse breaks to capture in print qualities characteristic of speaking that are lost or muted in written prose.

Understanding the relationship between ordinary and literary language is at the heart of Heath’s parallel investigations of the uses of and attitudes toward language among Black and White working-class communities in the Piedmont Carolinas (121) and among acclaimed literary writers (124, 125). Central to both studies is the observation that no written materials have meaning, use, or currency apart from oral interpretation (122–125). The significance and scope of this insight are wide-ranging. F. Smith (216) observes that no fact is meaningful apart from interpretation—an observation that rests on schema theory [see Tannen (224) for summary], frame semantics (85), and the philosophies of Wittgenstein and Heidegger. Heath (124, 126) demonstrates that people must talk about what they read in order to be motivated to read. An interesting corollary is found in Blazer’s (30) study of five kindergarten classrooms, which proceeded according to one of two programs for beginning writing instruction: copying what the teacher provided, or generating their own quasi-writing composed of invented and unconventional spellings. The
children taught by the latter process did better at writing and also "generated talk that was coordinated with the task, suggesting an active relationship between oral and written language during written language learning" (30, p. 81).

Heath cites classical and medieval rhetoricians and grammarians to the effect that "literate knowledge depended ultimately on oral reformulations of that knowledge" (125), and notes that early American schools emphasized opportunities for talk and for extended debate about interpretation of written materials (128). Ong (181) shows that Western academic practice grew out of a tradition of oral disputation as ritual male combat. A similar placement of written materials at the center of oral debate underlies Hasidic Jewish tradition (235), as well as Buddhist literacy, in which, according to Scollon & Scollon, "oral interpretation and elaboration were necessary for understanding" (208, p. 45). Numerous studies of reading aloud to children from books, for example by Cochran-Smith (59, 60), Cook-Gumperz & Green (61), and Heath & Branscombe (129), support this view. [Schieffelin & Ochs (204) review of some of this research.] Also relevant are studies of oral response in composition instruction, as collected by Freedman (94) and conducted by Nystrand (169).

The study of computer use provides evidence of the essentially interactive nature of information exchange in all modes. Access to the informational and procedural blessings of computers is available only through networks of people who know how to use the technology, and is a consequence of social factors.

Michaels (160) observed the introduction of a text editor in two sixth grade classrooms. She identified three critical factors that allowed nearly all students in one classroom to learn the basic editing commands: the teacher, accessible to all students, was the expert; a frequently consulted chart listing commands was posted; and students worked at the computer with assigned partners. In the other classroom, a student was the expert, and students worked at the computer alone or in self-selected configurations; knowledge tended to remain with the boy who held it and diffuse, if at all, through his social network, excluding girls. Copies of pages from the computer manual, which had been distributed to all students, were never consulted.

This example of diffusion, or lack thereof, of computer expertise through social networks in sixth grade classrooms parallels Crook's (68) account of a university research facility. A visitor at the University of California, San Diego, Crook needed to know the address specification for a computer message route to his home university in England. Detailing the network of people he communicated with through a computerized message system, Crook notes the tendency of procedural expertise to reside with individuals, resulting in an "informational oligarchy" by which crucial information is
inaccessible to novices, outsiders, and those lacking in necessary social status or skills. The problem is further complicated by the pragmatics of social interaction: How insistently can one press a claim for help?

The social determinants of computer information exchange described by Michaels and Crook encapsulate the social nature of all discourse, the main point of this section of this review. It parallels as well the process by which this section was composed, as I will now illustrate by way of conclusion. This was the first text I (Tannen) composed on a new personal computer, which had sat unused for three months because all my attempts to get needed information from its manual dead-ended at an unwritten and unshared assumption. So much for the autonomous written text. Finally I turned to people: A neighbor loaded DOS onto the hard disk and a visiting colleague loaded the word processing software. Information about the commands needed to invoke the word processor and enter text came not from the software manual (which, like the computer manual, contained too much and too little information) but from an informal summary a friend had written for temporary workers in her office. As I composed and edited the piece, I was able to use the manual to learn and remember basic commands, but more complicated questions and snags repeatedly drove me to call friends or a customer support service maintained by the software company.

What about the content of the review, a survey of published research? Our references here to written materials resulted from a similar blend of private and public, spoken and written, formal and informal exchange. We began by writing to people we knew had done work in the area targeted for review, requesting references to and reprints of their own and others' work. We followed up, in some cases, with telephone calls to request references from and discuss ideas with the authors. During these discussions, some referred to others whose work they knew from reading or conversation or both; they then either sent us the work or told us how to contact the authors, whereby the process was replicated.

This account is intended to illustrate the inextricability of speaking and writing in even those modes of discourse that seem most exclusively a matter of writing and reading, and the inherently social nature of all discourse. It is also intended to acknowledge and thank those whose help has just been described, and, by the unorthodoxy of this manner of acknowledgment, to point out the highly conventionalized nature of this and all genres.

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