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On the Instability of Disciplinary Style: Common and Conflicting Metaphors and Practices in Text, Talk, and Gesture

Andrea R. Olinger
University of Louisville, andrea.olinger@louisville.edu

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University of Illinois at Urbana-Champaign

This article explores how three writers in ecology understand and enact a disciplinary writing style. To accomplish this, it draws on theoretical approaches to style from sociolinguistics and linguistic anthropology, as well as analyses of drafts of coauthored texts and video-recorded literacy history and discourse-based interviews. This study finds that metaphor and embodied actions such as gestures are valuable sites for comparing writers' stylistic understandings and practices. The three writers expressed broad agreement when describing the qualities of good scientific writing, using similar verbal and gestural metaphors, such as Communication as Journey and entailments of the Conduit Metaphor. Yet in discourse-based interviews, specific stylistic choices provoked conflicting preferences not only between writers but even within them over time, as they sometimes changed their minds about what they had preferred over a year earlier. These conflicting and changing views, and the writers' arguments for them, complicate popular notions of writing style: that a particular discipline has a style uniformly shared among experts and that experts' mastery of their own style is stable and absolute. The finding that stylistic disagreements are undergirded by similar metaphors in language and gesture highlights the ways our stylistic understandings are tied to life histories and are also deeply embodied. Working from a sociocultural perspective, I provide a richer, more complex empirical and theoretical understanding of what it means to command a particular disciplinary style.

Every day, people grope to describe what a particular piece of writing looks and sounds like. When asked how he understood style in scientific writing, entomologist Claudio Gratton[1] laughed, commenting that scientific writing seems almost "style-less" because it "all kind of read[s] the same way." Journal editors in ecology and entomology, he said,

> certainly don't allow um embellishments in the language, it's pretty kind of dry language, it's pretty straightforward, and uh, you know, parenthetical comments are not very much seen, clauses are discouraged, so it's- again, how do you say, in the most efficient way- how do you say what you need to say.

He then contrasted scientific writing with "creative writing," where "you kind of

weave this yarn that springs surprises on people." He enjoys reading it, he declared, but advises students to forgo it in their scientific writing.

Claudio characterized scientific writing with adjectives like "dry" and "straightforward" and distinguished it from "creative writing," which occasions features like "embellishments" and "parentheticals." Underlying his representations of style are metaphors and other figures. "Dry," for instance, is a metaphor that compares the writing to a physical quality (not wet) to indicate absence of emotion or adornment. The transcript above is not the whole representation of the interaction, however; it omits information like intonation, facial expressions, and gestures. When Claudio called scientific writing "dry," he flattened his right hand and glided it from his left to his right side. He repeated this gesture for "straightforward." This gliding-flattened-hand gesture itself conveys multiple figures: his hand becomes the dry text and/or his mind experiencing the text, and the gliding motion and flattened surface indicate smoothness and lack of disturbances or surprises in the reading process. With figurative gestures like these, which, scholars of metaphor and gesture argue, embody an individual's knowledge of the world, Claudio is enacting his experiences with style and his beliefs about how texts should communicate.

Students in Claudio's lab, researchers whose manuscripts Claudio reviews, and writers of all ages and settings will, at some point, receive style comments containing terms and gestures like these. Often, these judgments are mystifying. What does *dry* mean, exactly? When shown a particular stretch of language, would Claudio and his readers agree on its dryness? Would they consider the gliding-flattened-hand gesture an accurate representation of dryness and straightforwardness? To what extent are such style descriptions agreed upon, and uniformly practiced, in a particular disciplinary community?

As I describe below, scholarship both within and outside of writing and language studies has often assumed that particular "discourse communities" have particular styles, and much style research to date has limited itself to analysis of texts or pedagogy. However, style is not inherent in texts: its meanings are a joint enactment of writer and reader. Attention to how styles are received and how writers manage the many tensions that emerge as they write, read, and respond tends to be absent from research and practice. Using discourse-based interviews (DBIs) and analyses of metaphors in talk and gesture, I examine how coauthors interpret each other's writing, attending both to how writers represent style (in their talk and gestures, often with metaphors) and to what they actually do in their texts.

In the data I will present, Claudio, Ashley (Claudio's former PhD student), and Sarah (Ashley's postdoctoral advisor) described scientific writing style in similar terms (e.g., "clear") and with similar gestures (e.g., depicting linearity), revealing common metaphors and, thus, shared understandings of how communication should work. But all three disagreed over many stylistic choices in their coauthored manuscripts, justifying their positions with these terms and gestures. Moreover, it became apparent that Ashley, Claudio, and Sarah disagreed with *themselves* about stylistic decisions they had made earlier. To be fair, experts in the same field often have different, even conflicting, opinions about the same text (e.g., Jeffery, 2011).

Should we, then, dismiss the fact of these differences as less important than the fact of shared general stylistic understandings? Claudio, Ashley, and Sarah are three scientists in overlapping subfields of ecology, with lengthy histories of interaction and coauthorship. If a stable, agreed-upon notion of disciplinary style were to be found somewhere, it would be here, in a small group with an extensive history of interaction. Instead, my analysis finds the absence of clear norms and the presence of shared metaphors, verbal and gestural, that writers deliberately or unwittingly inflect in practice according to their individual notions and situated dispositions. The stylistic flux this analysis uncovers thus complicates popular views that a discipline has a writing style widely shared among insiders and that a person's knowledge about style is stable and definitive. Identifying the situated, embodied, dynamic nature of style, I offer writing studies a fresh approach to style theory and research.

Defining *Style*

I would be remiss to continue without explaining how (and why) I use the term *style*. Across fields—such as sociolinguistics, stylistics, and rhetoric—style is defined quite differently, and in other contexts, it may not be defined at all. To some, style is distinct from terms like *language, dialect, register, genre, voice, stance,* and *tone;* to others, it may not be clear what, if any, the difference is. Essentially, these terms all index something recognizable. To borrow categories from Agha (2007), whose term of choice is *register,* they may index a recognizable type of person (Chicagoan, woman, kindergarten teacher), a type of relationship to the interlocutor (irritation, authority), and a type of activity or text (prayer, encyclopedia). As Abbott and Eubanks (2005) remark, many adjectives used to describe styles, like *conversational* and *elegant,* treat the language as a metonymic extension of a type of person, setting, or purpose.

Terms like *style, voice,* and *register* also carry assumptions about the sources of the material they describe: socially/culturally shared, individually distinctive, or some combination. Voice has tended to be associated with the individual—entailing notions of authenticity and a stable, singular self—but in Bakhtinian accounts it has been used to represent a blend of the individual and social (e.g., Matsuda, 2001; Prior, 2001). For corpus and functional linguists, register denotes the social—"a variety associated with a particular situation of use (including particular communicative purposes)" (Biber & Conrad, 2009, p. 6). Consistent with a sociocultural, dialogic view of language, in which our utterances contain traces of others and ourselves (e.g., Bakhtin, 1953/1986; Prior, 2001), the view of style I take here blends the individual and social. I use style to understand how individuals express themselves distinctively, drawing on partly individual, partly shared multisemiotic resources. I prefer the term *style* to *voice* to connect with the long tradition of style studies in composition, rhetoric, and other fields; to move more easily into multiple modes, given that voice is rooted in the linguistic and, in particular, the oral/aural (Bowden, 1999); and to avoid voice's emphasis on production over co-construction of meaning (Irvine, 2001).

Literature Review

Articulating this sociocultural approach to style requires assembling literature from a number of areas—not just writing and literacy studies but also applied linguistics, sociolinguistics, linguistic anthropology, and rhetoric. First, I discuss prevalent beliefs about styles. I present the common assumption that a discipline can have *a* writing style, and I analyze the structuralist language ideologies underpinning it, ideologies embodied in the Conduit Metaphor. Second, I detail the ways in which style has been studied as an artifact rather than a dynamic activity and present research from sociolinguistics and linguistic anthropology arguing for the latter view. Finally, I describe how I analyze coauthors' stylistic understandings and practices, which involves metaphor analysis of talk and gesture and parallel DBIs to compare views of stylistic choices.

Style Ideologies and Metaphors

Writing in the Disciplines (WID) practitioners have long been trying to steer faculty and students away from universal notions of "good writing" toward discipline-specific understandings. Universalizing tendencies persist, however, in comments about a discipline having *a* writing style. Such remarks occur in literature both outside and within writing studies—research and instructional materials alike. For instance, writing in a library science journal about graduate students' research behaviors, Rempel (2010) mentions "using disciplinary jargon, demonstrating an understanding of the literature and the field, and using the particular style of the discipline" as elements of "becoming grounded within a disciplinary community" (p. 533). Exemplifying the style assumptions in composition textbooks, Hinton (2010) enjoins students to study models their instructors provide, such as scholarly articles, which will not only demonstrate citation formats and provide "professional examples" but will also reveal "what style of writing a discipline values" (pp. 30–31).

In WID scholarship, notions of a singular disciplinary style also appear. Hansen and Adams (2010), contextualizing an article on approaches to teaching social science writing, mention that two departments designed "a 200-level introductory course in which [students] learn the basics of research and writing in the major, including its style, conventional formats, and documentation styles" (para. 10). And these ideas surface in discourse community theory. Swales (1990) argues that genres, owned by discourse communities (p. 26), are driven by particular communicative purposes and "exhibit various patterns of similarity in terms of structure, style, content and intended audience" (p. 58). Beaufort (2012) suggests that a "discourse community coalesces around a set of values and goals, has a set of typical genres that are used by those in the community, has overall norms for 'good writing,' and defines the social roles of writers within the discourse community" (p. 183). Her notion that discourse communities share values, goals, genres, and "overall norms for 'good writing'" seems to entail that disciplines have generally accepted styles. In conversations outside and within writing studies, then, the idea that a discipline has an agreed-upon style is pervasive.

These assumptions of homogeneity and stability reflect particular language ideologies: "beliefs, feelings, and conceptions about language structure and use"

that "often index the political economic interests" of speakers or groups, may be "explicitly articulated or embodied in communicative practice," and are usually "incomplete, or 'partially successful,' attempts to rationalize language usage" (Kroskrity, 2010, p. 192). At play here are ideologies that reproduce de Saussure's (1916/1959) prioritizing of *langue*—language as a stable, homogenous, synchronous, abstract system—over *parole*—language as shifting, heterogeneous, historical, concrete utterances. In popular and disciplinary accounts alike, there is a tendency to expect agreement, uniformity, and stability among a community of speakers, to assume that when language is shared, there should be no difficulty communicating.

These structuralist ideologies drive typical representations of communication and style, expressed in phrases like *get ideas across* that reflect the Conduit Metaphor of communication (Reddy, 1979), in which "language *contains* meaning; speakers and writers use linguistic containers to *send* meaning to audiences; and, at the end of the line, audiences *remove* the unaltered meaning from its container" (Eubanks, 2011, p. 142, emphasis in original). The main objection to this metaphor among writing and communication scholars is the linear, one-way nature of communication. As Eubanks (2011) puts it, the Conduit Metaphor "is a story of 'good writing' in its narrowest conception: writing that flows in one direction only, from writer to readership, and is associated predominantly with values such as factual and grammatical correctness, precision, detachment, and objectivity" (p. 170). A message that is "transparent" to the receiver is part and parcel of successful communication, according to the Conduit Metaphor.

Style as Co-constructed

Despite objections to the Conduit Metaphor, style research within writing studies and applied linguistics has not challenged its basic story. In writing studies, the bulk of recent scholarship on style has explored its changing status in the field (e.g., Butler, 2008), practical strategies and conceptual frameworks for teaching it (e.g., Duncan & Vanguri, 2013), and the stylistic theories embedded in pedagogical materials (e.g., Lockhart, 2012). In applied linguistics, stylistics, and rhetoric, the focus has tended to be on text analysis to understand socially shared features or the distinctiveness of particular texts, writers, or speakers (e.g., applied linguist Hyland, 2010, on two well-known linguists; stylistician Hoover, 2007, on Henry James; rhetorician Stark, 1999, on Margaret Cavendish). This kind of work involves extensive collection and analysis of texts, but it excludes data on how they are produced and received. The downside of looking solely at the text is that style becomes an artifact or "object-in-the-environment" (Prior & Hengst, 2010, p. 22) instead of something more dynamic. Sociolinguist Coupland (2007) prefers the term *styling* to *style* for this reason—to foreground the interactional dimension, the need for styl(ing) to be "read and interpreted actively by listeners/readers" (p. 11).

Drawing on work by Coupland (2007) and other sociolinguists (e.g., Bucholtz, 2011; Eckert, 2000), as well as linguistic anthropologists (e.g., Agha, 2007; Irvine, 2001), I approach style from a sociocultural lens. In this tradition, stylistic meaning requires recognition and interpretation by others. As Holcomb and Killingsworth (2010) contend, "style never is merely produced and sent abroad into the world,"

but rather "is delivered, shared, negotiated between an author and an audience" (p. 61). From this perspective, then, style cannot have a stable meaning: across individuals in a group or across different groups, the same semiotic form can index different people, activities, or relationships.

An example of the dynamism of style is Jeffery's (2011) work with secondary English teachers. When describing "voice features" of two high-scoring student essays, the teachers constructed writers' voices in complex and sometimes conflicting ways. The phrase "a place in the sun," from one student's narrative, was criticized by some teachers as clichéd but praised by others for its imagery and figurative language (p. 106). These different valuations of the same features led some teachers to judge the writer as a "calculating, insincere author responding to the demands of formal schooling" (p. 116) and others to defend him as a novice writer simply trying on different voices. My analysis shares assumptions with Jeffery (2011) and other voice research (e.g., Tardy, 2012) that style is a co-construction of both writer and reader, with sometimes-conflicting interpretations and effects.

Approaches to Analyzing Stylistic Understandings and Practices

In contrast with studies of textual style in disciplines and of styling in talk, I explore style in disciplinary writing by combining metaphor analysis of stylistic talk and gesture with parallel DBIs about texts. In doing this, I examine not only how writers describe styles but also whether coauthors interpret styles differently and whether their views align with or depart from their practices.

Figures of language ideology like the Conduit Metaphor capture how people understand and experience the world—and they are based quite literally in the body. For example, Lakoff (1993) observes that we tend to view quantity in terms of verticality (e.g., "The cost rose [or fell] dramatically") because when we pour liquid into a glass or add objects to a pile, the level rises, suggesting that these real-life correspondences may serve as more or less direct "experiential bases" for varied metaphors (p. 241), including viewing intense emotions as heat (e.g., "They got all fired up") and ideas as objects (e.g., "Where did you get that idea?").

This article draws on Lakoff's approach to analyze how metaphors express writers' understanding of "good style." However, unlike other research on writing-related metaphors (e.g., Abbott & Eubanks, 2005; Eubanks, 2011), I explore the embodiment of metaphors by attending to metaphoric gestures, a subject of growing research (Cienki & Müller, 2008). For the past several decades, microanalytic studies of face-to-face interaction within fields like linguistic anthropology, applied linguistics, and science and technology studies have explored the multimodality of human interaction (Streeck, Goodwin, & LeBaron, 2011). Although there has been an active line of research on writing as situated activity, the role of embodied actions like gestures and facial expressions in talk about writing has gotten limited attention (but see, for example, Haas & Witte, 2001; Prior, 2010; Wolfe, 2005). Video-recorded interview data, which I collected for two of the three writers, have allowed me to investigate bodily representations of style.

Originated by Odell, Goswami, and Herrington (1983), DBIs have allowed researchers to interrogate not just writers' stylistic understandings but also their

practices—and how they interpret their own and one another's. These interviews have provided a productive method for querying writers about particular bits of language. In Odell et al.'s approach, the researcher collects different examples of a genre by a writer (e.g., business letters sent by the same writer to different people) and notes ways in which the language has changed. The researcher then identifies alternatives to a handful of language choices and asks the writer, "Here you do *X*. In other pieces of writing, you do *Y* or *Z*. In this passage, would you be willing to do *Y* or *Z* rather than *X*? What basis do you have for preferring one alternative to another?" (p. 223). Each linguistic variant, argue Odell et al., is "a sensitive indicator of writers' complex understanding of the rhetorical context and ways for them to achieve their purpose within that context" (p. 231).

In adaptations by Prior (1995, 1998), the language variants often come from earlier or later drafts of a particular text, and parallel DBIs are used to explore professor and student views on variants (often ones the professor originally suggested). In addition, information about the variant—which draft it was taken from, or whether someone else, like an advisor, actually proposed the variant—is omitted. Prior (1995, 1998) has shown that DBIs make it possible to examine the relative influence of authoritative and internally persuasive discourses (Bakhtin, 1935/1981). For example, in the case of an advisor suggesting a change and a graduate student accepting it in her final draft, parallel DBIs might reveal that the student has internalized the feedback of her advisor such that she now prefers her advisor's suggestions to her own original wording, or that the *advisor* has internalized the ideas of her student such that she now prefers the student's original wording to her own suggestion. When the same DBI questions are asked of the writer and the person who commented on the draft, it is also possible to see the alignment between them: whether they agree on which version is appropriate and whether their reasoning is similar. Given that different readers might construct different meanings from the same words, parallel DBIs seemed a promising way to investigate the stylistic understandings and practices of coauthors.

Overview

Taking this sociocultural approach to style, the present study asks the following questions:

- How do writers understand disciplinary style? With what metaphors (verbal and gestural) do writers describe disciplinary style?
- How do writers' individual stylistic preferences manifest themselves in coauthored texts? To what extent do these preferences and their justifications converge with those of their coauthors? How consistent are these preferences over time?

In the next section, I present the study's methodology and methods. I then turn to the results, showing how Ashley, Claudio, and Sarah share broad notions of scientific writing style, particularly visible in the metaphors that underlie their verbal and gestural descriptions. As my analysis shows, however, their agreement is much

more limited in practice. I examine the nature of their disagreements and suggest explanations for them. Finally, I discuss the implications of stylistic instability, especially as embodied in metaphoric gestures, for our understandings of style.

Method

Site and Participants

As part of a broader study of how 30 writers (from college seniors to professors in various disciplines) understand, learn, and teach writing styles, this paper focuses on three academics in related fields of ecology: Ashley Bennett, a postdoctoral research associate in the Department of Crop Sciences at the University of Illinois at Urbana–Champaign (UIUC); Claudio Gratton, an associate professor and Ashley's PhD advisor in the Department of Entomology at the University of Wisconsin–Madison; and Sarah Lovell, an assistant professor and Ashley's postdoctoral advisor in the Department of Crop Sciences at UIUC. Ashley and Claudio specialize in entomology, Sarah in crop science. I focus on this group because they were interested in the project and provided rich data, and because, as experts in related fields who coauthored together, they provided a useful test case for understanding shared notions of disciplinary style. Ashley lived in my neighborhood, and we met soon after I moved to town. After she learned what I was studying, our conversations sometimes veered to scientific writing. Once I began data collection, I invited Ashley to participate.

Data Collection Procedures

I collected both interview and textual data. In all the interviews, I felt it was important not to impose a particular understanding of style. As a result, I did not define the term *style* when I used it, and I asked about the influence of both social elements (e.g., disciplinary conventions) and individual elements (e.g., what participants felt made their writing unique) on their views and practices.

First, I conducted a semistructured literacy history interview with Ashley to learn about her experiences with academic writing and style. We discussed her writing experiences in high school, college, graduate school, and her postdoctoral work, especially with various advisors, and her understandings of disciplinary style. This interview took place in December 2011 in her office. She allowed me to video-record it.[2]
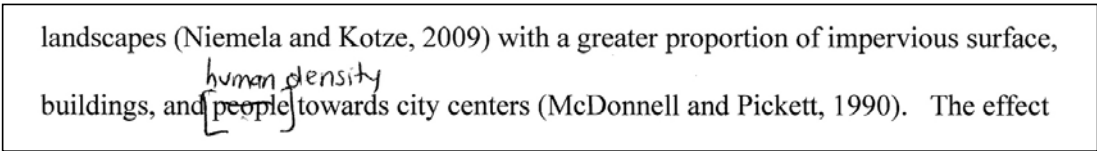
At the end of the interview, we discussed which texts I might "follow" that she had worked on or was currently working on. Ashley shared texts from four projects. Two were articles coauthored with Claudio—one published, one under review—that were based on dissertation chapters. For both articles, she shared a draft with Claudio's comments, a revised version that was submitted to the journal, and comments from journal reviewers; for the published article, she also shared her revision based on reviewers' comments, her cover letter to the editor, and the published article. The other two manuscripts she shared—a successful $10,000 grant proposal and an article manuscript in progress—were coauthored with Sarah; she shared drafts and Sarah's comments.

I read all of these texts in preparation for DBIs with Ashley, Claudio, and Sarah, choosing one piece of writing from each pair. For Ashley's work with Claudio, I chose the published article because Claudio made more line-by-line changes on the draft (versus global comments or drastic reworking of sections) and because Ashley had mentioned that this article had involved a considerable amount of back-and-forth, with each person preferring his or her version. For Ashley's work with Sarah, I chose the grant proposal because it had been completed and Sarah had commented on three separate and complete drafts, as opposed to one incomplete draft.

To prepare for the DBIs on those two writing projects, I used Microsoft Word's "Compare" feature to help identify differences between the final draft and early versions, especially changes triggered by Claudio's or Sarah's comments. For Ashley and Claudio's article, what I am calling the "final draft" is the draft that was accepted by the journal after revision based on reviewers' comments; it was not yet copyedited, proofread, or typeset. For Ashley and Sarah's grant proposal, the final draft was indeed the final version that received the award.

After examining the differences between the drafts, I began identifying changes that I wanted to learn more about. For the article coauthored with Claudio, I made a list of 18 changes to ask Ashley and Claudio about; for the grant proposal coauthored with Sarah, I made a list of 10 changes to ask Ashley and Sarah about. The changes were at the word and sentence levels, excluding changes that were very small (like the pluralization of a noun) or very large (like the deletion of a paragraph). On the final drafts of both manuscripts, I crossed out the "final versions" of these portions of the text and wrote the versions from the earlier drafts above them. Occasionally I needed to slightly reword the alternative so it would make sense in context. See Figure 1 for an example of what these documents looked like.

I conducted separate DBIs with Ashley, Claudio, and Sarah. The interviews with Sarah and Claudio began with semistructured questions about their formative writing experiences in college, graduate school, and professional settings; their approaches to giving feedback; and their understandings of disciplinary style. Because of a lack of time, I only asked Claudio about 12 of 18 changes. (I was able to ask Sarah all 10 questions.[3]) Ashley's DBI was video-recorded in her office; Claudio's interview was conducted over Skype, and I recorded the screen as we spoke; Sarah's interview was audio-recorded and conducted in her office. After I had transcribed and analyzed the DBIs, I met with Ashley to share the results with her, and I audio-recorded that conversation. Together, the five interviews totaled just over five hours.

FIGURE 1. *An excerpt from a discourse-based interview document.*

Data Analysis Procedures

First, I produced rough transcripts of the interviews and included relevant embodied actions such as gestures, facial expressions, and laughter; the result was 116 single-spaced pages of transcript. I then analyzed the transcripts in two ways: how Ashley, Claudio, and Sarah described writing styles and the extent of their agreement in the DBIs.

To analyze their descriptions of style, I coded the transcripts inductively, noting places where style was described in both talk and gestures. I then began to identify patterns in these descriptions. All three writers, for instance, talked about how good scientific writing was easy to follow: Ashley commented that "you want someone else to kind of be able to <u>foll</u>ow- read your methods and exactly replicate your study," Claudio said that "your mind never wanders," and Sarah said that the writer shouldn't be "taking you around in circles." These descriptions seemed connected to the metaphor of Communication as Journey. Noticing the prevalence of metaphors like these, I reviewed the places in the transcripts where style was described and coded deductively for metaphors describing mental events. As I did, I referred to a widely used metaphor list (Lakoff, Espenson, & Schwartz, 1991) along with other published analyses of writing-related metaphors (Abbott & Eubanks, 2005; Eubanks, 2011).

To analyze the extent of participants' agreement in the DBIs, I examined each person's response to the DBI questions. I identified whether their response (whether they preferred the alternative, preferred the language in the final draft, had no preference, or preferred something different entirely) resembled or diverged from their action in the final draft over a year and a half later (in the case of Ashley and Claudio's article) or a year later (in the case of Ashley and Sarah's grant). I then compared their responses, counting the times the coauthors agreed and analyzing their justifications for their preferences. (If one coauthor expressed a preference and the other had no preference, I counted this as disagreement.) Ashley's response to my preliminary findings helped me better understand the results and provided further examples of style descriptions. When I had identified the stretches of interaction that I would be focusing on here, I refined the transcripts of those excerpts, adapting the system of Hengst (2001, 2010), who aligns speakers' utterances so they can be read like a musical score. Lastly, as I was revising the paper, I shared drafts with Ashley and had several telephone and email conversations with her.

Results and Discussion

Shared Understanding of Scientific Writing Style

Like the technical communication practitioners and instructors studied by Abbott and Eubanks (2005), Ashley, Claudio, and Sarah had similar ideas about the qualities of good scientific writing and relied on similar metaphors to describe them. In this study, the metaphors were Communication as Journey and several entailments of the Conduit Metaphor—Directionality, Language as Container, and Understanding as Sight (explained below).

The writers frequently interwove multiple metaphors in their talk and gestures. For instance, when I asked Sarah if she noticed any style differences in the interdisciplinary journals she wrote for, she invoked both the Communication as Journey metaphor and the Directionality entailment of the Conduit Metaphor (with its positive valence, *directness*). Sarah commented that journals might differ in jargon (although they "try to avoid any particular disciplinary jargon") but that "they still all push a direct approach, and not, you know, kind of taking you around in circles to get *((circles wrist))* to the answer, and kind of a straightforward writing approach."[4]

In the metaphor of Communication as Journey, the shared understanding between the speaker/writer and listener/reader is treated as a shared location, and "when [people] continue to understand each other through a shifting sequence of mental states, they metaphorically travel from location to location together, remaining co-located throughout a shared journey" (Sweetser, 1992, pp. 716–717). In scientific writing, this journey should be as short and "direct" as possible. In the Directionality entailment of the Conduit Metaphor, "language moves along a pathway from one point to another" and "the ideal pathway is the shortest distance between Points A and B" (Abbott & Eubanks, 2005, p. 192).[5] Sarah's adjectives "direct" and "straightforward," her comment about not "taking you around in circles," and her wrist-circling gesture all involve the metaphor of a writer's creating a linear path for the reader whose "progression should be uninterrupted or predictable" (Abbott & Eubanks, 2005, p. 193).

Claudio and Ashley also combined Communication as Journey with a few entailments of the Conduit Metaphor. Claudio, for instance, felt that his own postdoctoral advisor was "one of the clearest writers" he had met. Figure 2 presents Claudio's description of the effect of reading his advisor's papers. Claudio described a writer controlling the reader's mind, guiding it on a linear, logical journey so it "never wanders" (line 1) and so the reader can "follow you" (line 10) and the writer does not "lose" him or her (line 9). Claudio's repeated floating and cascading of his palm from a higher to a lower position (lines 1–3, 8) and sweeping of his palm in diagonal lines from high to low (line 4) demonstrate this smooth, linear path (Figure 3).

Claudio's response echoes Sarah's comment, and corresponding gesture, about the writer's "taking you around in circles." When he warned about what happens when the writer's thoughts are not clear, he swept his right hand out to the side (Figure 2, line 9) and drew his finger in an *s* shape (line 10), implying that curving, nonlinear thoughts sidetrack readers.

When I asked Ashley how she would describe the style of the different journals she had published in, she said they had a similar "format" (introduction, methods, results, discussion) and "style." I then pressed her to be more specific; Figure 4 presents her description. Like Claudio, Ashley felt the reader should "be able to follow" the writer (Figure 4, line 7), and she floated her hand from shoulder-level to lap-level (Figure 5). This fluid movement seems to depict the reader following the writer, or the writer guiding the reader.

1	C: And if you read those papers, your mind never *wanders, A: *floats palm from high to low*
2	C: It just- * A: ((tongue click)) Wow: * floats palm from high to low*
3	C: You- you read,* and you just go from ***paragraph to paragraph, A: ** *floats palm from high to low **nods ***cascades palm from one level down to another*
4	C: and it's just the *flow is so clean, (0.2) A: *sweeps palm in two diagonal lines from high to low*
5	C: and if you *look at how they're written, the **topic sentences are always ***s:pot on.= A: *A-Okay gesture **A-Okay gesture ***A-Okay gesture*
6	C: And so that's when I just said** (1.0) if you- A: =Wow.* *nodding **A-Okay gesture*
7	C: *if you don't have that first sentence right A: Mmmmmmm *nodding*
8	C: and then have that *paragraph be cohesive around that first sentence, (.) ***forget it. A: ** *floats palm from high to low **nods ***throws hands out*
9	C: You know, you're- you don't have (1.0) you're gonna *lose (1.0) uh the reader A: Mmmmmmmmmmmmm *sweeps right hand out to the side*
10	C: because *your thoughts aren't clear and (.) they're not gonna be able to follow you A: **Mmmmmmmmmmmmmmm *** *draws finger in s-shape **nods ***nods*

FIGURE 2. *Claudio describes his postdoctoral advisor's style. In conventions adapted from Hengst (2001, 2010), the transcript resembles a musical score, with simultaneous utterances placed on top of each other. Gestures and other embodied actions are noted with asterisks and described at the bottom of the line. See Appendix for more conventions.*

FIGURE 3. *Claudio floats his palm from high to low while saying, "your mind never wanders" (see Figure 2, line 1).*

1	Ash: And: And so how would you describe the style of writing if you (1.0) if you can.
2	Ash: I *guess I would just say it's s- **scientific writing And: 　　　*raises eyebrows, shrugs **spreads open palms out, as if there's nothing else to say
3	Ash: I don't know how else to- it's very *clear, it's very **concise, (0.8) And: 　　　　　　*raises and lowers open palms **raises and lowers open palms
4	Ash: it's very kind of *matter of fact, you're kind of **stating- (1.0) And: 　　　　　*raises and lowers open palms **raises and lowers open palms
5	Ash: and the, and the methods in particular, it's just (.) *very straightforward, And: 　　　　　　　　*claps back of right hand onto left palm
6	Ash: you want it to be very *concise, very **clear, And: 　　　*makes circle with thumbs and fingertips **raises and lowers circle-gesture
7	Ash: you want someone else to kind of *be able to follow- (1.0) And: 　　　　　*floats left hand from shoulder-level to lap-level
8	Ash: read your methods and be able to *exactly replicate your study. And: 　　　　*spreads out flattened open palms

FIGURE 4. *Ashley describes scientific writing style.*

FIGURE 5. *Ashley floats her hand from shoulder- to lap-level while saying, "You want someone else to kind of be able to follow" (see Figure 4, line 7).*

The idea of a direct and linear journey is often embodied in gestures that illustrate precision of language, which is an entailment of the Conduit Metaphor, Language as Container. In this entailment, "meaning is put into and taken out of words or texts" and "meaning and the language that contains it have an ideal fit" (Abbott & Eubanks, 2005, p. 192). For example, when Ashley remarked that the

methods section should be "straightforward" (Figure 4, line 5), she clapped the back of her right hand onto her left palm (Figure 6).

FIGURE 6. *Ashley claps the back of her right hand onto her left palm while saying, "it's just (.) very straightforward" (see Figure 4, line 5).*
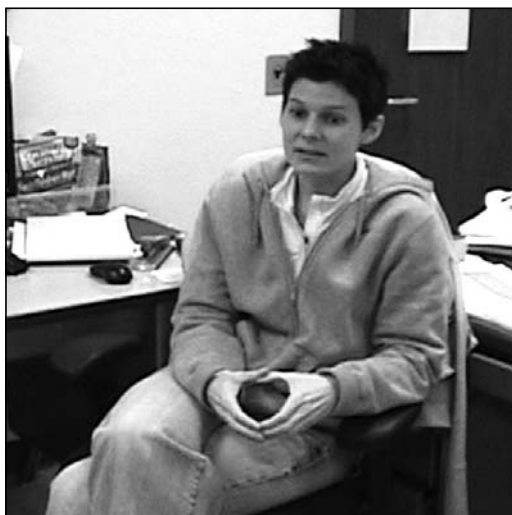

FIGURE 7. *Ashley touches her thumbs and fingers together in a circle when calling scientific writing "very con<u>cise</u>" (see Figure 4, line 6).*

Visually and aurally, this gesture enacts compression and "fit" of meaning. The motion of one hand landing atop the other might also signify a solid, well-grounded conclusion to the journey.

In addition, when she said that scientific writing is "very con<u>cise</u>" (Figure 4, line 6), Ashley represented concision by touching her thumbs and fingertips together. Characteristic of "ring" handshapes (Kendon, 2004), this gesture indexes precision in the fine movements required to complete it and visually forms a container (Figure 7).

Similarly, Claudio observed that his advisor's topic sentences were always "<u>s:pot on</u>" (Figure 2, line 5), which implies a precise location being reached.

FIGURE 8. *Claudio forms an "a-okay" gesture while saying, "the <u>topic</u> sentences are always <u>s:pot on</u>" (see Figure 2, line 5).*

His repeated use of the "a-okay" gesture (Figure 8) indicates his approval of "spot-on" topic sentences, but it also resembles Ashley's "concise" gesture. With thumb and index finger delicately touching, he depicts the idea of meaning precisely achieved (Figure 8).

The other Conduit Metaphor entailment appearing throughout is Understanding as Sight. As Abbott and Eubanks (2005) describe, drawing on Lakoff and Johnson (1999), "receivers of language are ideally able to see meaning that has been conveyed to them (e.g., I see what you mean)" (Abbott & Eubanks, 2005, p. 192). For example, amid references to Communication as Journey, Claudio said that thoughts needed to be "clear" (Figure 2, line 10), and Ashley asserted that topic sentences as well as scientific writing in general should be "clear" (Figure 4, lines 3 and 6).

Ashley, Claudio, and Sarah's talk and gestures thus demonstrate that understandings of style are deeply shared in mind and body. As with Thaiss and Zawacki's (2006) faculty, however, shared terminology often conceals conflicting practices. "When our informants use similar terms to refer to their goals and expectations for student writing," they write, "we can't be sure that they share the same values or are actually talking about very different things" (p. 59). The writers' practices, as made visible during the DBIs, reveal that Ashley, Claudio, and Sarah did indeed enact this shared style differently.

Different Enactments of Shared Stylistic Understanding

Ashley and Claudio spent over a year and a half working on the article, each making many sentence-level changes along the way. After Ashley and I had completed the DBI, Ashley told me that she thought Claudio would favor his own wording because, as they revised the manuscript, they tended to prefer their own different versions of particular sentences. Indeed, the DBI results confirmed Ashley and Claudio's continued disagreements. For the 12 pairs of items that I queried their preferences on, they disagreed eight times, or two-thirds of the time. Six of these disagreements involved language that Claudio had suggested but Ashley had not accepted in the final draft. In addition to disagreeing when writing the article, therefore, they continued to disagree on some of the same language over a year and a half later. Ashley and Sarah also disagreed on a number of DBI items, though fewer than did Ashley and Claudio. On the eight pairs of items I asked about, Ashley and Sarah disagreed four times.

In a number of cases, disagreement was masked by use of the shared terminology reported in the above section, like the word "direct." In the example presented in

Ashley's preference (the version in the final draft): <u>In contrast, arthropod abundance was positively affected by flower diversity, a local landscape variable.</u> Local habitat manipulations such as the addition of flower plantings are known to benefit insects by providing them with pollen, nectar, protection from predators, and over wintering habitat (Tscharntke et al. 2007).

Claudio's preference (an alternative version): <u>On the other hand, local characteristics of the environment, such as flower diversity within a property, were positively associated with increases in beneficial arthropod abundance.</u> Local habitat manipulations such as the addition of flower plantings are known to benefit insects by providing them with pollen, nectar, protection from predators, and over wintering habitat (Tscharntke et al. 2007).

FIGURE 9. *The underlined sentences are two versions of a topic sentence from the discussion section of Ashley and Claudio's article. Ashley preferred the final-draft version, whereas Claudio preferred the alternative.*

Figure 9, Ashley's preference—which, she argued, achieved directness—conflicted with Claudio's preference—which, he argued, helped the reader follow the writer. Ashley said she preferred the final-draft version, which she had written, because "it's simple *((slices right hand across chest))*, it's easier *((repeats slicing gesture))*, it's more direct *((repeats slicing gesture))* topic sentence." The alternative, she said, was "more wordy." In her talk and gestures (Figure 10), she produced a number of metaphors. The phrase "more direct" uses the Directionality entailment, and her slicing gestures—a flattened hand cutting through the air at chest-level—also depict communication moving in a straight line. In addition, "easier" likely implies "easy to read/follow," meaning that information quicker to receive or process is preferred (Conduit Metaphor). And contrasting her preference with the "more wordy" version conjures the Language as Container entailment, in which language is tightly compressed.

Claudio acknowledged that the final-draft version was a "clean" topic sentence, saying, "at least it can stand alone and . . . the paragraph after it can be justified." "Clean," here, might exemplify Language as Container—depicting the topic sentence as tidy, neatly fitting the paragraph it precedes and lacking extraneous information—as well as the Conduit Metaphor, in that a transparent medium is required to send the message.[6] However, he still preferred the alternative version, which he had proposed in an earlier draft. The paragraph preceding the passage in Figure 9 is about a broad-scale characteristic, landscape diversity, and the alternative sentence starts with "local characteristic" instead of closing with it. The alternative, he implied, made the contrast between the paragraphs more apparent. When "local landscape variable" comes at the end, he said, "you've kind of lost the reader *((draws horizontal line in front of his face with pinched fingers))* or you just haven't quite given the reader a reason to <u>read</u> that sentence *((repeats gesture))*." Describing his preference, Claudio uses Communication as Journey in talk ("lost the reader") and gestures (Figure 11).
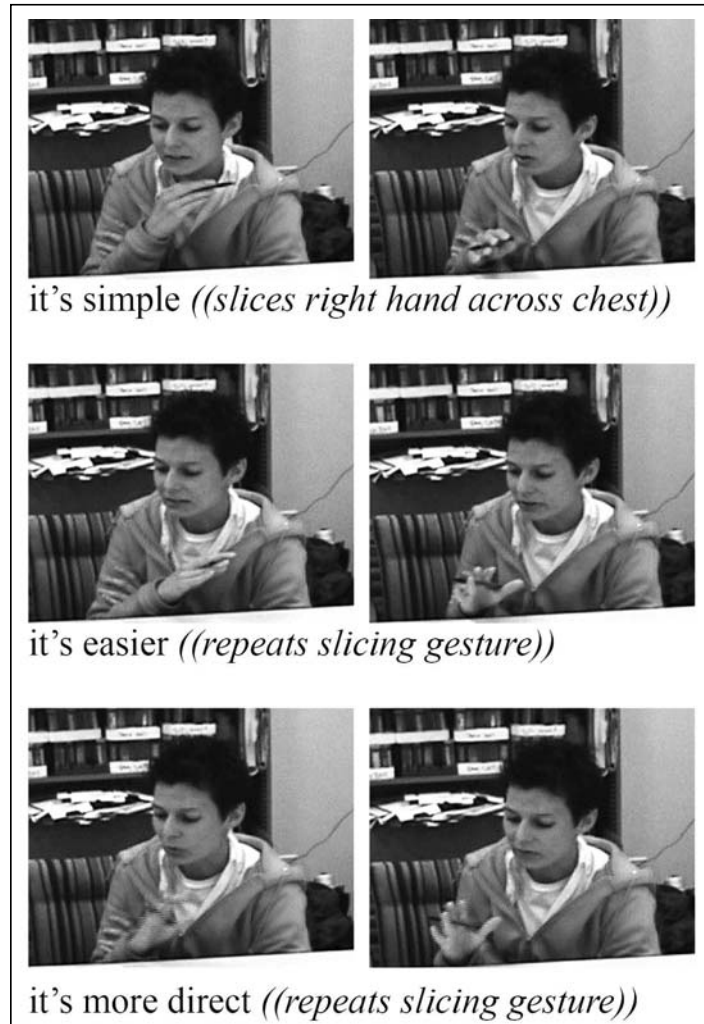
FIGURE 10. *Ashley slices her hand at chest-level while describing her preference.*

With thumb pinching forefinger, he drew an imaginary line from the left to the right side of his face. This line seems to signify the work of readers trying to follow the writer's logic despite their being "lost." Claudio then repeated the gesture when uttering the phrase "<u>read</u> that sentence," as if depicting the sentence's straight line.

In this example, Ashley and Claudio disagreed on the best sentence but used similar metaphors—Communication as Journey, the Conduit Metaphor, and its Language as Container and Directionality entailments—to justify their preferences. Notably, they both used a straight-line gesture, connoting directness (Ashley) and a linear journey (Claudio). These verbal and gestural metaphors, indexing shared notions of style, thus obscured conflicting beliefs and practices.

Ball, Dice, and Bartholomae (1990) argue that when professors use terms like *clear,* they "cloak" disciplinary writing from students (p. 351), implying that successful communication employs generic skills, not disciplinary knowledge. In my data, such terms indeed hid more than they revealed. Yet the fact that disciplinary

you've kind of   lost   the reader

FIGURE 11. *Claudio draws a horizontal line with pinched fingers.*

experts were using these terms complicates this picture, suggesting that experts' own understandings of disciplinary style may be "cloaked." I would argue that individual biographical trajectories are likely responsible for diverging practices and that DBIs can reveal glints of the experiences from which these practices develop.

Seemingly mundane disciplinary terms, for instance, occasionally indexed different meanings for each person. One such instance cropped up over the appropriateness of the word *techniques* instead of *management practices*. Whereas Sarah preferred *techniques* (or *approaches* or *strategies*) because its semantic field, in her view, went beyond that of *management*, Ashley favored *management practices* because *techniques*, for her, indexed laboratory work—for example, in molecular biology—that went beyond management and because *management practices* was the more common term. Similarly, Ashley and Claudio disagreed over the suitability of *landscape variables* versus *landscape characteristics*. Ashley found no difference between the terms, whereas Claudio preferred *characteristics* because he felt that *variables* "is a jargony term that comes out from the statistical analysis" and that this "statistical baggage" was unnecessary. In cases like these, terms that one might assume have shared meanings do not. A person's sense of the discipline's patterns of use seems to vary with his or her life experience.

These responses, then, hint at Ashley, Claudio, and Sarah's distinct histories of exposure to particular words. Their ongoing encounters with language naturally led them to feel more comfortable with some words than others. For example, in the grant proposal coauthored with Sarah, Ashley preferred the alternative version (Figure 12). (Note that Ashley was the author of the alternative version; she then revised that language to create the final-draft version.) Sarah had no preference, calling both sentences "pretty similar."

What's in the final draft: We anticipate our results will highlight the potential urban green spaces have for utilizing IPM plans that enhance beneficial arthropods and the services they provide.

Ashley's preference (an alternative version): We anticipate our results will highlight the potential urban green spaces have for using IPM strategies that enhance arthropod conservation and the provisioning of arthropod mediated services.

FIGURE 12. *Two versions of a sentence from the grant proposal. Underlined text indicates where the two versions differ.*

"Utilize," which appears in the final draft version, has long been critiqued in popular usage guides as an unnecessary complication of *use.* The language in the alternative version could be characterized as more complex and technical, however, because it is slightly longer and adds two nominalizations, "conservation" and "provisioning." Still, Ashley preferred it, commenting that whereas Sarah usually used "provision," she herself favored "provisioning."

In the DBI, Ashley added that the phrase "the services they provide" was "a little awkward" (Figure 13).

1	Ash: Yeah, I don't like, I don't like, this is- "they provide," I think that's a little awkward And:
2	Ash: Mm hmm Yeah. (2.0) Although I used that. And: "the services they provide" *you think is awkward. *writes in notebook
3	Ash: hah (4.0) Umm (6.0) I guess- I mean, I guess it's not awkward, (6.0) And: Why awkward.
4	Ash: 'cause I do- I- I mean °this is my writing I wrote it° but- I just feel like *this sentence And: *points to the sentence with her pen
5	Ash: is a little clearer. (2.0) *°"Using IPM strategies that enhance arthropod- provisioning of And: *traces the sentence with her pen
6	Ash: arthropod-mediated services"° I don't know, I feel like this sentence is a little (.) And:
7	Ash: clearer. (.) More direct. And: *°Kay.° **°Okay.° *nods **nods

FIGURE 13. *Ashley explains why she prefers the alternative version of the sentence (presented in Figure 12).*

When pushed, she explained that she preferred the alternative version because it was "a little clearer, more direct." Ashley thus marshals the Conduit Metaphor entailments of Understanding as Sight and Directionality to support what felt more familiar. These disagreements reveal that such language ideologies, although expressed in shared metaphors, are inflected by preferences stemming from writers' distinctive life histories and encounters with words.

Individuals' Shifting Judgments about Style

Some of the disagreements that Claudio and Ashley had in their DBIs were the same disagreements they had exhibited over a year and a half earlier, when they were revising the manuscript. At the same time, changing one's mind was routine in these data, especially in Sarah and Ashley's grant proposal. All eight items that I asked about in the DBI started out as language that Ashley had drafted. When Sarah gave feedback on the grant proposal, she proposed revisions to three of

them—revisions that Ashley accepted in the final draft—and Ashley revised her own language in the remaining five items. During the DBI, however, for all eight items, Sarah either preferred Ashley's original version or had no preference. Ashley was happy with the final-draft versions of three items, but she preferred her original version or had no preference for the remaining five.

By contrast, Claudio and Ashley changed their minds less often with regard to the 12 DBI items from their journal article. Of these, seven contained alternative wording that Claudio had suggested and Ashley had ignored when producing the final draft. For these seven items, Claudio preferred his suggestions all but once, and Ashley preferred her final-draft language all but twice. However, they still did change their minds. Most strikingly, for two out of three DBI items representing Claudio's changes that Ashley had accepted in the final draft, both Claudio and Ashley preferred Ashley's original language.

In such examples, in-the-moment stylistic decisions prove especially difficult to access. In the phrase "landscapes dominated by man-made structures such as roads and buildings," for example, both Claudio and Ashley agreed that "man-made structures" was redundant. However, it was Claudio who had added "man-made structures" and Ashley who had accepted it. Why had Claudio added it? That version may have been slightly more internally persuasive at the time. Or it may have been a mistake—a quick reaction to a fast read.

I recognize that the DBI method may also have shaped some of these changes of mind. The interviews occurred over a year after the manuscripts' completion, and because of time constraints, participants could not reread the whole manuscript, which might have altered their senses of context. Also, the DBI document was a typewritten manuscript with handwritten changes that resembled editing suggestions (see Figure 1). I explained that the typewritten manuscript was a final draft and that the handwriting contained language from previous drafts, but this format may have been counterintuitive. Nevertheless, all three writers made and accounted for their different style judgments. At a minimum, their changes of mind demonstrate the instability both of individual writers' style expertise and of a discipline-specific style. If discipline-specific style preferences were established and stable, one would expect increased convergence, not disagreement, over time.

Conclusion

This article demonstrates that these three coauthors share beliefs about the characteristics of scientific writing style. But it also documents differences in what they prefer when they examine actual bits of language, differences that seem to stem from distinctive life histories, and it identifies changes of mind over time. These findings complicate notions of a shared discipline-specific style and of the stability of an expert's knowledge about style.

Despite the seeming limitation of the small sample size, the purpose of this case study is not to delineate the discipline's style but to examine style as a phenomenon. Studying such small, interacting groups affords close analyses of talk

and text, essential to understanding micro-level stylistic processes. If there were strongly shared discipline-specific styles, small groups should show high levels of stability and agreement. My broader study of coauthors in a variety of disciplines, in fact, suggests that the dynamism of style applies beyond this particular group (Olinger, forthcoming).

What implications does this instability have for WID researchers and teachers? I do not mean to suggest that disciplinary writing is completely idiosyncratic and that, as a result, we ought to dispense with any notion of disciplinary style. Rather, I believe that instead of seeing WID as a matter of universal rules, whether generic or discipline-specific, researchers and teachers should work to understand how situated, embodied, and distinctly individual knowledge permeates disciplinary writing and how that writing comes to be perceived as writing "in the style of the discipline."

Situated, Embodied Style Dispositions

Dialogic and practice theories understand style acquisition apart from so-called "rules." In dialogic theory, utterances are fundamentally situated in our life histories. What people speak and write comes not from decontextualized words in a dictionary and abstract sentences generated by grammar but from living, breathing utterances from actual speakers throughout history—our own histories and others'. Given that individual encounters with styles pervade shared disciplinary styles, the latter could be described as not wholly but "quasi-shared" (Prior, 2001, p. 64).

Life experiences that are different but also quasi-shared lead to different but also related and routinized ways of communicating, interpreting, and interacting in the world, which can explain Ashley and Claudio's continued style disagreements. Bourdieu (1977) defines habitus as "systems of durable, transposable *dispositions*" that structure representations and practices "without in any way being the product of obedience to rules," assuming intentionality, or requiring mastery (p. 72, emphasis in original). Hanks (1996) turns to Bourdieu to account for genres' combination of recognizability and variability, arguing that as "a set of enduring dispositions to perceive the world and act upon it in certain ways," genres "are among the best examples of habitus" (Hanks, 1996, p. 246). Styles, I suggest, might also be examples of habitus. If stylistic practices are dispositions shaped by individuals' life experiences, then we can see how easy it is for stylistic interpretations to differ consistently by individual. On the other hand, as evidenced by individuals' changes of mind, these dispositions may be less durable than practice theory might posit. We need to expect variation not only between but also within people over time.

Bourdieu (1977) sees habitus as embodied, and the occurrence of shared ideologies in metaphoric gestures may exemplify embodiment. Yet the gestures are not just metaphoric but also metonymic, in that the hand is an extension of the reader's or writer's mind. With such gestures, people are in essence *performing* stylistic effects and interpretations. Attention to the complexity of gestures can highlight the fact that, although stylistic representations may look and sound universal, they are also deeply embodied and personal.

Questions about Metaphoric Talk and Gesture for Style Knowledge

For writing researchers, the presence of metaphoric talk and gestures raises intriguing questions about style knowledge. Talk and gestures, with and without metaphors, blend in a variety of ways in these data. There might be a verbal metaphor but no gesture, as when Claudio called the sentence in the final draft (pictured in Figure 9) a "clean" topic sentence without moving his hands. Or, gestures might merely emphasize beats in the metaphoric talk, as when Ashley said, "it's very clear, it's very concise," raising and lowering her open palms at "clear" (Understanding as Sight) and "concise" (Figure 4, line 3). Alternately, a metaphor might be gestural but not verbal, as when Ashley said "it's simple" while slicing her hand across her chest (Directionality entailment, Figure 10).

Moreover, metaphors in talk and gesture might align, as when Sarah said while circling her wrist that the journals she published in did not promote "taking [the reader] around in circles to get to the answer" (both signaling Communication as Journey). Perhaps most interesting, different metaphors sometimes overlapped in talk and gesture, as when Claudio said, "when your thoughts aren't clear" (Understanding as Sight) while drawing his finger in an *s* shape (Communication as Journey) (Figure 2, line 10) or when Ashley said, "you want it to be very concise, very clear" (Understanding as Sight) while making a circle with her thumb and fingertips and raising and lowering that gesture (Language as Container) (Figure 4, line 6; Figure 7). (Note that Ashley's gesture here, in emphasizing the talk and depicting a metaphor, exemplifies the quite natural multifunctionality of gestures.)

Does the simultaneous use of *different* metaphors in talk and gesture provide special insight into stylistic understanding and practice? Although researchers should not expect consistency or simplicity in metaphor use (Gibbs, 2008), a few interesting questions emerge. Does the co-occurrence of different metaphors in talk and gesture mean that the speaker sees these different metaphors as bound up together, coalescing around a single ideology about what good scientific writing looks like? Or, does it hint at each person's individuated understandings of generic "clarity"—thus presaging disagreement between coauthors during the DBIs? Alternately, does it hint at the instability of each person's understanding of style—presaging changes of mind? The data in this article do not answer these questions, but they certainly point to the potential of analyzing metaphor and gesture for researchers interested in the nature of writing knowledge.

Summation

In this paper, the methods of video-recording, metaphor analysis, and parallel DBIs allowed me to probe writers' stylistic understandings and practices, revealing a sociocultural view of style in which socially shared styles are dynamic, co-constructed, and inflected with the experiences of individual users. Examining theories and practices of style from this sociocultural perspective thus represents a valuable new direction for the study of writing style and offers important evidence for the situated, embodied, heterogeneous nature of disciplinary discourse practices, even among a small group of writers collaborating over time.

APPENDIX: TRANSCRIPTION CONVENTIONS

In the system adapted from Hengst (2001; see also, e.g., Hengst, 2010), the transcript resembles a musical score, with simultaneous utterances placed on top of each other. Gestures and other embodied actions are noted with one or more asterisks (*) and described at the bottom of the line. In addition, the following transcription conventions are adapted from conversation analysis (e.g., Sacks, Schegloff, & Jefferson, 1974).

Symbol	Gloss
C: spot on= A: =Wow	Equals signs indicate the utterances follow one another without a pause.
((circles wrist))	Italicized text within double parentheses describes gestures. (In Figures 2, 4, and 13, however, gestures are noted with an asterisk and described below the lines.)
(2.0)	Numbers in parentheses indicate the duration of a pause in seconds.
(.)	A period within parentheses indicates a micropause, about one-tenth of a second.
°This is my writing°	Degree signs around an utterance indicate that it was spoken at a lower volume.
"Using IPM strategies"	Text within quotation marks is read aloud from a written text
wor-	A hyphen indicates cut-off speech.
wo:rd	One or more colons indicate a sound stretch—the more colons, the more prolonged the sound.
word?	A question mark indicates rising intonation, not necessarily a question.
word.	A period indicates falling intonation.
word,	A comma indicates rising-falling (continuing) intonation.
word	Underlining indicates a stressed syllable.

NOTES

1. When given the choice on the consent form, all study participants indicated that they preferred that their real names be used.
2. I video-recorded whenever possible to capture embodied actions like gestures and to enrich the interpretation of transcripts.
3. As I analyzed the data, I realized that I needed to eliminate two items I had asked Ashley and Sarah about because they pertained to an inconsistency in the text. This left a total of eight items.
4. As our interview was audio-recorded, this gesture comes from my field notes.
5. Directness has also become associated with people who say what they mean. This association hints at age-old metonymic stereotypes: femininity with ornament, loquaciousness, circularity; masculinity with simplicity, brevity, strength (Baron, 1986, pp. 65, 68).

6. One reviewer was reminded of Shannon and Weaver's (1949) signal-noise metaphor. A "clean" signal (or message) would have little to no noise.

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Andrea R. Olinger is a PhD candidate in the Department of English and the Center for Writing Studies at the University of Illinois at Urbana-Champaign.