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Interactive rhetoric for online learning environments

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Abstract

Limitations in communication modality and interactivity influence the use of language in an online environment, and conversely, language may be adapted to compensate for the online constraints. This is significant for participants in online learning environments (OLEs) who rely on written verbalization to achieve their educational objectives. Discourse analysis provides a means for understanding language and its role in online communication. The author introduces a new approach, called interactive rhetoric. Interactive rhetoric is a tool-oriented form of discourse analysis, treating language as a tool and using the tools of rhetorical analysis to understand and employ online language more effectively. While rhetorical analysis is typically associated with oratory and essay, the author argues that the OLE is uniquely suited to this approach.

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1. Introduction

Teachers and students are required to make adjustments as they begin to undertake the educational process in an online learning environment (OLE). The challenges entail all aspects of the online environment and impact all phases of the learning process (Coppola, Hiltz, & Rotter, 2001; Dringus, 2000; Dringus & Terrell, 1999; Weller, 2002). Among the distinctive affordances of OLEs are their limited modality and interactivity: They are typically text based and asynchronous. These limitations,

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while not necessarily negative, do influence the communication that goes on there. Because communication is a sine qua non for education, anything that influences the communication also influences the educational outcome. And if there is human communication going on, one thing is certain: Language is in use. Thus, the focus of this paper is on language as used in OLEs. Moreover, the author examines the problems that arise when language use is limited by the technology and how these limitations manifest themselves in the language.

In a purely text-based medium, communication is constrained by the loss of nonverbal resources, as well as by the loss or alteration of real-time verbal resources, such as timing and intonation. Communication skills that work well in the classroom are therefore not automatically transferable to the online environment, and the ability to use text-based language effectively is imperative. In an asynchronous environment, interaction is constrained. There are typically delays between each message and its response, and these delays may be hours, days, or even weeks. This asynchronous characteristic works well to the extent that it allows participants time to think about their contributions before submitting them. However, this can also result in looseness in the conversational structure, as participants' views of the topic evolve during the lapses between contributions (Herring, 1999). For language use, the combination of text-only modality and asynchronous communication means that participants must exercise good writing skills, but it also means they also have the opportunity to do so.

To understand the problems and opportunities presented by the online environment, it is useful to take a close look at language as it actually occurs there. Discourse analysis is an interdisciplinary approach to the study of language as used at the discourse level, sometimes within a broad social context (Schiffrin, Tannen, & Hamilton, 2001). It involves the theories and methodologies employed in understanding how language can be used to perform specific social activities or to achieve specific social identities (Gee, 1999). The approach taken here differs somewhat from what is usually found in discourse analyses. While this paper draws heavily from the literature of discourse analysis, the author argues for the treatment of language as a tool. There are several reasons for this. In the OLE, language is the principal tool for communication. That is, language is an integral part of the online technology. Moreover, if participants can reach an understanding of language as a toolset, they will be better prepared to deploy it effectively. Thus, by using a tool-based perspective for analyzing language use, this approach narrows the gap between theory and practical application.

Rather than create a new toolset from scratch, this paper argues in favor of using existing tools for effective language use. The toolset advocated here is rhetoric. Rhetoric is among the oldest of the arts and sciences, along with philosophy, medicine, and cosmology, handed down from the ancient Greeks. Considerable discussion has been given to the definition of rhetoric. An entire volume could be spent defining the term. Aristotle defined rhetoric as the study of the techniques of persuasion (Rhetoric, I.1, 1355b), and this is the definition often found in dictionaries. More recently, Richards (1936, p. 3) defined rhetorical as the "study of misunderstanding and its remedies." This leads Richards to a rather interesting discussion about the use and abuse of language, but the definition is a bit broad for other purposes. Burke (1950, p. 59) discussed rhetoric and its ability to issue invitations to "purely formal assent." This comes close to characterizing the rhetorical aspect of language. This suggests that the aspect of language to which rhetoric attends is formal rather than semantic. When these forms are used effectively, they help the writer in sharing his or her viewpoint with the reader (Lanham, 2003). Rhetoric attends to the features of language that make this happen.

Although rhetoric has traditionally emphasized the study of oratory and essay, in an OLE, language is used interactively. Because communications are asynchronous, interactivity involves a lag time, but

nevertheless, messages are written and directed from the producer to one more addressees within the learning group, and responses are generally expected. Thus, the use of rhetoric in this environment is termed interactive rhetoric. Interactive rhetoric, as understood in this paper, is the facility to engage in interactive computer-mediated communication (CMC) for the purpose of persuading, informing, or motivating the participants. By its interactive nature, interactive rhetoric is distinct from oratory or essay forms of rhetoric.

This paper first surveys the relevant literature and then develops the concept of interactive rhetoric and applies it to some sample texts. In the course of this discussion, the author will argue in favor of the use of interactive rhetoric as a toolset, both for understanding online communications and for participating effectively within OLEs.

2. Literature review

This section contains a review of the relevant literature from a variety of disciplines. This includes discourse analysis as applied to education, to CMC, and to OLEs. This is necessary because there is little literature that addresses the problem from the specific perspective advocated here. Therefore, to set the stage for further discussion, it is necessary to draw from the penumbra surrounding it. Drawing upon this range of topics aids understanding of the problems addressed and the possibilities for further research.

2.1. Discourse analysis in education

Although the essential roles of discourse and rhetoric in education have been recognized and debated at least since the time of Socrates, Plato, and Aristotle, the application of discourse analysis, as now understood, dates back to the mid 1970s (Adger, 2001), when researchers such as Shuy and Griffin (1981) began studying the characteristics of classroom conversation. Since that time, there has been a continuous flow of publications on the topic. In the past 15 years, discourse has been a subject of interest among education reformists (Cazden & Beck, 2003). Active areas of research include ethnographic studies, literacy development, sociocognitive theory, and social interaction development (Adger, 2001). Cazden and Beck (2003) identify a more specific set of topics, focused on classroom activities, such as sharing time, lessons, and student-to-student discourse. It is not the objective of the current discussion to provide a full overview of discourse analysis in education; Adger (2001) and Cazden and Beck (2003) have accomplished that task ably. Instead, this section of the literature review focuses on studies pertinent to its central theme—the application of rhetorical resources to discourse in OLEs. Face-to-face analogs to this theme should shed light on the online problems, both in terms of what can be replicated in the online environment and what cannot.

A common pattern observed in classroom discourse is what has been called the teacher initiation, student response, and teacher evaluation (IRE) elicitation sequence (Adger, 2001; Cazden & Beck, 2003). In an IRE sequence, the teacher initiates the discourse, for example, by asking a question, the student responds, and the teacher provides feedback. Much classroom discourse fits this pattern. Whereas one might imagine that these patterns are easily mapped to the online environment, it is not so readily done. In the classroom, as in other face-to-face situations, the participants rely on context and nonverbal information that is unavailable in the OLE. Indeed, the conversational patterns observed in the classroom are distinctive. For example, a teacher's utterance consisting of a student's

name can constitute a complete elicitation, by invoking a previously asked question (Adger, 2001). Tunstall and Gipps (1996) developed a teacher feedback typology for formative assessment and socialization. Their examples of the typology include both verbal and nonverbal forms of feedback. A teacher skilled at managing IRE elicitation sequences in the classroom might be at loss for words in the online environment.

There are a number of specific research topics in discourse analysis in classroom education that are important to the online environment. These include indirect directives, implicature, intonation, and manner. Indirect directives are used by teachers to give direction without "giving orders." Classroom routines, structures, rights, and obligations are used as context for teacher utterances, providing improved verbal economy and enabling the teacher to speak with greater politeness than can be accomplished using direct imperatives (Bol & Strage, 1979; Cazden & Beck, 2003; Hernandez & Ruiz de Mendoza, 2002).

Similarly, an implicature is any information that may be inferred from an utterance, but for which the truth or falsity does not depend. For example, the statement "Some lawyers are respectable people" in most contexts would be interpreted to imply that "Not all lawyers are respectable people," but it does not actually say so. There are numerous rhetorical devices for creating implicatures, such as catachresis, circumlocution, euphemism, ellipsis, enthymeme, understatement, and irony. The ability to convey and interpret implicatures is important for educational discourse and has been the subject of many studies (e.g., Irwin, 2001; Kasper & Rose, 2002; King, 1983; Kotsonis, 1981). Effective use of implicature in the classroom may not translate into skills online. This may present difficulties for teachers and students alike, particularly for nonnative language speakers (Cheng & Warren, 1999).

Although intonation is seldom discussed in traditional rhetoric, it plays a fundamental role in human interaction—a unit of words may be interpreted as an assertion or as a question depending upon the pitch glide used by the speaker, or an assertion can be given any number of possible meanings simply by altering the pitch glide (Gee, 1999). Writers may presume a pitch glide in the construction of textual expressions, and readers may infer it, but correctly conveying and interpreting pitch glide solely on the basis of what is written can be a dubious proposition. Therefore, it is critical that participants in CMC be sensitive to the pitfalls of incorrect interpretation of intonation (Schleppegrell, 2001).

Finally, among the topics of discourse analysis in the classroom, there is manner. Fallona (2000) discussed the role of manner in conveying moral virtue to students. If such an issue seems challenging in a face-to-face environment, it may be terra incognita for OLEs. While the elements of manner considered relevant here go beyond what would usually be considered a part of discourse analysis (e.g., decisiveness, self-control, and respect), it is interesting to consider that in an online environment, the discourse is the sole instrument for conveying manner. Poulakos (2001) indicated that, perhaps, it no accident that the association between rhetoric and virtuous behavior are as old as rhetoric itself.

2.2. Computer-mediated communication

There have been numerous studies in discourse analysis in CMC. Many of these deal with topics only indirectly related to interactive rhetoric, but nevertheless provide interesting context for the present discussion. For example, Baron has written on the linguistic and cultural impacts of email, challenging the notion that email should be considered a digital form of conversational or epistolary modes of communication (Baron, 1984, 1998, 2000). Characteristics such as extreme informality, lack of proofreading, and generally accepted views on turnaround time indicate that email is a

medium all its own, rather than a variant of another form. Crystal (2001) has also argued that digital discourse is introducing changes to the language, and that in particular, the small screens of handheld devices are having an impact on the way people use language. To the extent that the characteristics of email carry over into the OLE, they present challenges for students and teachers. There are, however, questions as to the extent to which the rhetorical characteristics of one type of environment are transferable to another. For example, Fahy found that instances of flaming and related behavior reported in unmoderated environments (Walther, 1996) did not occur in moderated OLEs (Fahy, 2002a, 2002b).

Herring (2001) has proposed a specialization in discourse analysis called computer-mediated discourse (CMD). CMD focuses on language and language use within the CMC environment. This specialization is justified by the distinct problems presented by CMC for discourse analysis. Herring (1999) has argued that CMD is distinctive in several ways. Online interchanges tend to be less cohesive than face-to-face conversations, topics tend to decay rapidly, and conversational threads tend to become overlapped and intertwined within a single forum. Other characteristics that would argue in support of this include stylistic reductions and ellipsis characteristic of CMD (Ferrara, Brunner, & Whittemore, 1991). Herring notes that characteristics such as these have implications for technology design. There are technologies in various stages of research that seek to address some of these issues (e.g., Erickson, Herring, & Sack, 2002; Erickson et al., 1999), but in lieu of a forthcoming solution, the present study contends that it is appropriate to provide teachers and other CMC participants with the skills necessary to successfully moderate and benefit from online interaction.

2.3. Online learning environments

While there are studies that discuss various problems of communication in OLEs (e.g., Moon, 1998; Nicholson, 2002; Weisskirch & Milburn, 2003; Wood & Smith, 2001), studies from a specifically rhetorical perspective are rare. In fact, no studies were found that address in a substantial way the rhetorical nuts and bolts of OLEs. Lazonder, Wilhelm, and Ootes (2003) experimented with the use of predefined opening phrases in an OLE. In their experiment, students could select a phrase from a menu. The hypothesis was that providing such openers would aid the students in articulating their messages. However, the researchers found that users rarely used the openers and were skeptical of their utility. There are several possible reasons for this. The openers may not have been useful for implementation reasons; for example, they may have involved a workflow distraction, or the quality of the openers may have been inadequate. Another possibility is that there is no perceived problem that the sentence opener feature solved. In any case, the results of this study do not suggest that canned prompts of this nature would be useful in supporting users in composing rhetorical constructs for online interaction. However, an inverse feature, command line completion, where the application "anticipates" the commands on the basis of initial keystrokes are used in a number of operating systems, such as Microsoft Windows and some Unix shells. While these capabilities are simplistic, they do suggest that if designed appropriately, users will use such features.

Zyngier and De Moura (1997) studied online messaging among Brazilian schoolchildren and found that the patterns of language used employ a combination of written and oral constructs. This finding is consistent with the research of Baron (1984, 1998, 2000) cited earlier. An interesting observation made by Zyngier and De Moura is that the students were able to master new linguistic patterns and expressions to establish personal links amongst themselves.

Given the scant information available on the rhetorical aspects of OLEs, one might hope to transfer some of the knowledge gained from classroom studies to online. However, given the attenuated modality of text-based environments, no such assumption is warranted. In fact, it is not clear that comparisons with face-to-face environments are even desirable. Some researchers have advocated that distance education seeks its own standards for quality rather than emulate classroom education. McDonald (2002) and Hollan and Stornetta (1992) have argued that by avoiding comparison to traditional education, distance education can free its technology from the constraints of an ill-founded set of assumptions as to what constitutes effective education.

Similarly, analyses of communications occurring in similar environments, such as Internet discussion groups, may shed light on what to expect in an OLE. The affordances are essentially the same—they share the same text-based communication modality, and, in all cases, interactivity is asynchronous. However, there are important differences both in the technology and in the way it is used. Access to an OLE is typically limited to individuals signed up for the class. This access is technologically enforced, and the users must take some overt action to enter the environment, such as opening a special application and logging in. The participants in the environment could generally be expected to share some level of commitment and risk, more so than would be expected in an open forum. Both teachers and students enter an OLE with expectations based on past experience. This includes experience with other OLEs, classroom environments, and other CMC. For example, newcomers to online learning may anticipate social norms associated with chat rooms and initially adopt chat-room behavior. OLEs have an explicit formal social structure which moderates participant behavior and determines outcome. Lastly, participation in an OLE has a defined beginning and end. The participants work together over period of weeks or months, and then the course completes. These complex factors are the subject of numerous books and papers (see, e.g., De Corte, Verschaffel, Entwistle, & van Merriënboer, 2003; Discenza, Howard, & Schenk, 2002; Weller, 2002), but the implication to be drawn here is that the OLE is a technologically and functionally distinct communication medium and therefore deserving of more attention from the rhetorical perspective.

2.4. Interactive rhetoric

Interactive rhetoric is a tool for understanding and engaging in interactive CMC for the purpose of persuading, informing, or motivating participants. An important feature of interactive rhetoric is that it operates on an elemental level. As such, it uses the tools of traditional rhetoric to render online communications on the level of descriptive analysis.

In his discussion of the methodologies of discourse analysis, Gee (1999) observes that underlying any method is a theory. The theory may not be fully articulated, it may contain contradictions, but there is some modus operandi that informs and motivates the methodology. In other words, the methodology implies a model of the reality it investigates. The domain of interactive rhetoric is language as it occurs in asynchronous online environments. While it is not restricted to OLEs (as the examples below will show), OLE is a critical focus for interactive rhetoric because the texts contributed to the online environment represent a significant investment for the participants. For the most part, the sheer fact that the participants are participating represents a significant investment.

The theory of interactive rhetoric—very much a work in progress—is that the language acts occurring in these environments are rhetorical entities. Any language act can be analyzed for its rhetorical attributes, and by performing this analysis, greater understanding of the language act can be achieved.

Because this understanding is articulated on an elemental level, it is of practical value to readers and writers alike. The analysis reveals the formal constructions that underlie the text and make it comprehensible, cohesive, persuasive, informative, or otherwise.

The theory further hypothesizes that these rhetorical entities are interrelated and that these interrelationships can be fruitfully described in rhetorical terms. Complex conversations are constructed of interlocking rhetorical entities occurring in cyberspace. The benefit of analyzing conversations in this way is that they provide a clear picture of just what transpires there to make the conversation develop the way it does. In his study of the social dynamics of online scholarly debate, Hert (1997) found that despite the egalitarian design of the technology used, participants with superior rhetorical skills were able to dominate the debates. Through the use of interactive rhetoric, it will be possible to identify in a precise manner how such dominance is achieved. This process is illustrated in the examples presented later in this paper.

The following sections provide a detailed discussion of interactive rhetoric, including its basis in traditional rhetoric, an overview of the problems interactive rhetoric seeks to address, and a set of examples. The examples are analyzed to demonstrate the use of interactive rhetoric in action and to provide evidence in support of the theory.

2.5. Rhetoric as a tool of research

Rhetoric has suffered from a bad reputation at various times during its 2400-year history. In the Gorgias and Phaedrus dialogs, Plato famously condemned rhetoric as the use of language for deceptive purposes. Other commentators have viewed rhetoric as an unnecessary ornament, a frivolous distraction from more honorable and honest use of language (Lanham, 1995, 2003; Richards, 1936). Closer to home, Tracy (2001) has argued that rhetorical analysis should be kept apart from discourse analysis, claiming that the intermingling of the two results in confusion. In her view, rhetorical analysis is more closely allied with literary criticism and the interpretation of public texts and speeches. Discourse analysis, on the other hand, is grounded in social sciences and is more apt to study language in everyday use.

There are various responses that could be made to this argument, such as acknowledgement of the great debt discourse analysis owes to rhetoric, but the responses most germane to the present inquiry are more direct. First, with the advent of the World Wide Web, the distinction between "language in everyday use" and "public text" is no longer a clearly drawn line. The asynchronous nature of CMC goes beyond conversation and makes everyone a writer. One need not even host a Web page to be a published writer. One need only post a message to Usenet. Second, and this is an important point, rhetoric is pervasive. As Hayakawa and Hayakawa (1976) have argued, even facts are affective, and the more directly these facts are presented, the more persuasive is the case they make. Even arguments against rhetoric have rhetorical dimensions. Rhetoric provides a way of looking at language, and it provides a toolset for both analysis and composition. Like any tool, the tools of rhetoric may be used or abused. The issue here is not to justify abuse, but to put the tools to a useful purpose.

What then are the tools of rhetoric? Rhetoric defines a large number of constructions and patterns known mostly by their formidable ancient Greek names, such as hypotaxis, parataxis, and chiasmus. Some elements of the rhetorical nomenclature, such as hyperbole, euphemism, and parenthesis, have made their way into everyday parlance. It is not the purpose here to provide a catalog of rhetorical terms—several are already available (e.g., Corbett & Connors, 1999; Lanham, 1992; Nordquist, 2003). Such terms as are invoked in this analysis will be glossed in situ (on the spot). However, note that there

is no periodic table of rhetorical tools. There are only lists, and as to what belongs on the list, there is only loose agreement. That this might seem ad hoc may be somewhat disturbing. However, as a means for identifying rhetorical phenomena, the descriptive power of the toolset is impressive. The ad hoc aspect of the tools by no means detracts from the theory of interactive rhetoric as described herein, no more so than a misplaced handsaw discredits the craft of carpentry.

2.6. Online language

There are acknowledged limitations in online communication. Misreading of messages is common: humor is mistaken for criticism; constructive criticism may be misinterpreted as insult; body language, facial expressions, and variations of voice intonation are simply unavailable. Emboldened by the lack of these cues, writers may say things online that they would not say in person (Shechtman & Horowitz, 2003; Wood & Smith, 2001). The phenomenon well-known as "flaming" is a contribution to an online discussion may provoke a torrent of insult in response (Dery, 1994; Kayany, 1998). Rhetoricians would call such litanies of abuse bdelygmia or invective, but only if they were well done.

Also of concern in OLEs is the issue of social presence. Some research indicates that working within an online environment can be an isolating experience if the participants are unable to establish social ties with one another (Kraut et al., 1998). Recommended activities for creating social presence include recommendations for course design, functions instructors can perform, and functions students can perform (Aragon, 2003). These include activities such as providing feedback, making regular contributions to discussions, sharing personal experiences, and using humor. In an online environment, all of these activities must be accomplished exclusively through the use of language.

Because written language is the sole means of communication in an OLE, it is necessary to make the most of it. Nonverbal behaviors that are a natural part of face-to-face conversation must be compensated for by means of language. Rhetoric provides the means to do this. Simple rhetorical devices, such as anticipation, connotation, energia, and enthymeme, occur commonly in discourse. Anticipation commonly occurs in argumentation, when the writer anticipates the reader's objections and counters them in advance. Energia is the use of vivid imagery to conjure a situation and may be used to convey affect. Enthymeme occurs when a logical premise required for an argument remains implicit. This can be used when the premise is so obvious that it needs no mention, or when the premise is suspect and, therefore, must be hidden. By managing such resources effectively, OLE participants can begin to leverage the environment to their advantage, rather than resisting it as an obstacle. Thus, the language skills of students and teachers are critical to the success of the online experience. Language is the principal tool. It is the only tool.

2.7. Interactive rhetoric in action

Textbooks on rhetoric generally look to the great speech givers and writers for examples. For example, Corbett and Connors (1999) include excerpts by Martin Luther King, Matthew Arnold, Virginia Woolf, and Henry David Thoreau in their text. Because these examples tend to be rhetorically highly developed, it can be difficult to see how the devices employed can be observed in ordinary communication. In fact, Lanham (2003) notes that it is typical of modern writing, particularly in prose essay forms, that writers strive for transparency, for a style that does not emerge as a distinct attribute of the writing. The reader's attention is directed to the content, not to the way the words are used. The rhetoric is antirhetorical. And

yet, Lanham argues, even the most transparent writing is rhetorical. In any language act, there is a speaker or writer, the act itself, and the audience. In giving utterance, there is rhetorical intent. Whereas rhetorical eloquence may impress the audience, excessive eloquence tends to lay bare the machinery of persuasion and may thereby render itself ineffectual. The last thing that a rhetorician should want would be to be known as a rhetorician. A transparent style is a rhetorical style that avoids calling attention to itself. For this reason, transparent prose may be the most likely to succeed in achieving its rhetorical objectives. The less aware the audience is of the presence of rhetorical devices, the more vulnerable it is to their seductive power. Consider the following paragraph from *The Sciences of the Artificial* of Simon (1969, p. 55):

Historically and traditionally, it has been the task of the science disciplines to teach about natural things: how they are and how they work. It has been the task of engineering schools to teach about artificial things: how to make artifacts that have desired properties and how to design.

This short paragraph seems simple and straightforward. Simon (1969) is providing a concise summary of the distinction between science and engineering. On casual reading, it is not obvious that there are rhetorical figures at work. On closer inspection, though, another perspective emerges. First, there is the opening introductory clause, "historically and traditionally." These words bring authority to the sentences that follow. Simon is under no compulsion to prove the points that he is about to make, as he invokes the weight of both history and tradition to attest to his veracity. Next, there is the structure of the sentences. Simon makes extensive use of parallelism between the two sentences that comprise the paragraph. This is achieved using two classical rhetorical figures, anaphora (repetition at the beginning of successive clauses) and isocolon (a succession of phrases with corresponding structure). Simon uses anaphora in "it has been the task of science" and "it has been the task of engineering." He uses isocolon to define what these tasks are: "to teach about natural things" and "to teach about artificial things," and again in the elaboration "how they are," "how they work," "how to make," and "how to design." The effect of this parallelism is to lay out the differences between science and engineering into neatly drawn categories, almost as if they were planned that way. Yet, Simon is careful to avoid overdoing it—he varies the phraseology enough to prevent the parallelism from becoming too obvious. Thus, for example, there are science disciplines but engineering schools. And in using the phrase "how to make artifacts that have desired properties" rather than simply "how to make artifacts," Simon disrupts the metrical symmetry of the isocolon in a way that helps deflect any suggestion of self-conscious rhetorical construction. By these means, Simon achieves Burke's "invitation to purely formal assent." By structuring his writing in this compelling fashion, Simon sidesteps any obligation to engage in what might prove to be an extended and difficult argument as to the differing roles of science and engineering. This permits him to move ahead with further arguments regarding the role of artifice.

Although Simon did not make his reputation as a rhetorician, it is clear that he was an accomplished writer. It would be appropriate to take a look at some more examples, this time from online environments. What follows is a complete Usenet post from Minsky (1996). For clarity, Minsky's portion of the text is italicized:

From: minsky@media.mit.edu (Marvin Minsky) Subject: Re: Open Letter to Professor Penrose

Date: 1996/01/07

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Message-ID: \(\( \)1996Jan7.154707.4350@media.mit.edu\\ \#1/1
```

distribution: inet

sender: news@media.mit.edu (USENET News System)

 $\langle 30ef0c53.56554c43414e@vulcan.xs4all.nl\rangle$

organization: MIT Media Laboratory

newsgroups: alt.philosophy.objectivism,alt.sci.physics.new-theories, sci.physics, sci.physics.particle, sci.math,sci.math.symbolic, sci.logic, comp.ai, comp.ai.philosophy, sci.philosophy.meta, alt.memetics, alt.extropians

In article (30ef0c53.56554c43414e@vulcan.xs4all.nl) johanw@vulcan.xs4all.nl (Johan Wevers) writes:

>Timothy Murphy \(\text{tim@maths.tcd.ie}\) wrote:

>

>>In that case, surely your belief is preordained too,

>>and so of little value.

>

>I don't know how my beliefs are formed and what the influence of real

>(quantum) undeterminacy is on them. But I don't follow the logic that

>claims they are of little value in that case. Can you please explain?

Perhaps he meant in the same sense that logic itself could be considered to have no value because its conclusions are determined by its assumptions. It might be fun to see some proposals for useful definitions of value—or valuable definitions of useful.

The style of Minsky (1996) is typically direct and often blunt. But even blunt rhetoric is rhetoric. In the first sentence, he is intervening in a conversation between Johan Wevers and Timothy Murphy in which Wevers has asked Murphy for an explanation of Wevers' earlier remarks. However, Minsky's intervention is only ostensibly directed to Murphy. It seems more likely that he is speaking past Murphy to deflate Wevers' argument. Wevers' argument is presented as an enthymeme; that is, it has a hidden premise. The hidden premise is that to be preordained is to be of no value. Minsky adopts this premise and uses it to demonstrate that it leads to the conclusion that logic is of no value. Thus, by applying Wevers' reasoning to logic itself, Minsky effects a reductio ad absurdum on the entire discussion. However, there is more. Minsky now uses a subtle device in rhetoric called paralepsis, in which the speaker makes a major point but passes over it quickly. The result is that the speaker ultimately emphasizes the point in a manner akin to understatement. It requires time to sink in. Hence, Minsky does not belabor the point, but moves on to his second statement, a seemingly frivolous suggestion about the definition of value. Here again, there are hidden treasures. The entire discussion is predicated on some unspoken notion of what value is, and he effectively ridicules the argument with his playful construction: "useful definitions of value—or valuable definitions of useful." This pattern is called *chiasmus*, where the second half of the expression echoes the first, but with the terms reversed. This reversal is more than play, for it anticipates where the discussion might go from here—if one of the participants were to propose that value be defined as usefulness, Minsky has already suggested a problem there. The search for first principles in this realm leads, if not to reductio ad absurdum, then certainly to reductio ad

infinitum. In a face-to-face environment, such a discussion could easily turn into a shouting match. In an online environment, it could degenerate into a flame war, especially in an open forum like Usenet. And, in fact, the conversation does turn nasty, more so than would be likely to occur in a face-to-face conversation. But there is no further comment from Minsky. While achieving social presence in an online environment is seen as a challenge, the social absence option is always readily available.

The next example is an email message from Nancy Baym to Susan Herring, quoted by Herring (2002) in a presentation on CMC:

Date: Thu, 1 Jun 2000 10:03:13 -0500 To: HERRING SUSAN \(\text{herring@uta.edu} \) From : Nancy Baym \(\text{nbaym@ukans.edu} \)

Subject: Re: keynote scheduling

HI Susan, the last day is Sunday and we're having no keynoters at all, so notto worry about that. Appreciate your flexibility, and expect we'll be able to work within such lax param eters! Plenary topic and title sound great, as does the workshop idea (you might want to call that one gender and the Internet, just to hitthe broader population a bit). Look forward to meeting you f2f and will stay in touch as things progress,

Nancy

Herring (2002) notes several interesting features in this text, such as the ellipses of subjects and definite articles, the typos, the jargon ("keynoters" and "f2f") and the learned vocabulary (e.g., "plenary," "parameters," and "broader population"). As Herring points out, a number of inferences can be made about the sender. She is an educated person, yet unconcerned about typos, and possibly in a hurry. The message content is task focused, and the promise to "work within such lax parameters" is somewhat noncommittal.

But is that all there is to it? Is it just a quick note from a conference organizer? Perhaps most interesting are the ellipses. Throughout the message, the first-person singular is consistently omitted. These ellipses contribute to the hurried, telegraphic style of the email, but are they an indication of hurry, or merely indication of a hurried style? In his study of subject ellipses in email messages, Nariyama (2004) found that this technique often results from evasive or dismissive motives, with the intent to discourage further response from the addressee. In other words, through the use of ellipsis, Baym may be telling Herring that this is the final email interchange between now and the conference. And if this were too subtle, it is reinforced by the closing remark, "Look forward to meeting you f2f...," with an indefinite promise to stay in touch.

Another point of interest is the parenthetical suggestion Baym makes for the title of the workshop. A parenthetical remark is a kind of aside, nominally an inline footnote. But like Minsky's paralepsis, the parenthetical remark draws attention to itself through its effort at being inobtrusive. Furthermore, the remark is phrased as a suggestion ("you might..."). Is it a strong suggestion, or just a passing thought? Apparently the sender gave it serious enough consideration to mention it, and to take care to put it into parentheses. What significance should be attached to the reason given for the suggested title, "just to hit the broader population a bit?" Is there reason to suppose there will be little interest in the workshop? Or, does Baym have other motives for suggesting the title? Perhaps, the suggestion is an example of indirect directedness, where the utterance intends something stronger than a literal interpretation would indicate. As mentioned earlier, the technique of indirect directness is commonly

used in classroom discourse (Cazden & Beck, 2003), where it permits the teacher to maintain a level of politeness that would not be available using direct imperatives. In an online environment, interpreting equivocal suggestions of this nature can be troublesome for the message addressee. They are all the more troublesome when they are placed within a message that seeks no response. In fact, it might be difficult to compose a polite (but not too polite!) response that would be direct enough to elicit clarification.

3. Discussion

Analyses of this nature do not necessarily lead to a definitive understanding of the writer's intent, but they do yield a great deal of information about the problems in using CMC effectively. By approaching these problems on a rhetorical level, it becomes possible to address them in a practical way. In the Minsky (1996) example, reading for content reveals only a superficial discussion of a well-worn philosophical subject. But the rhetorical analysis reveals a complex interactive performance among the three participants, with Minsky ostensibly replying to Murphy but, in fact, rebuffing Wevers. In the Herring (2002) example, the email from Baym sounds cheerful and friendly, but on further analysis, it is not all clear that the cheerfulness is what it appears to be. Still, Baym was able to make her preferences known in a manner that did not invite further discussion.

These analyses, albeit of an extremely limited corpus, suggest that rhetoric is pervasive, that rhetoric is concomitant to language acts. Its use does not require a classical education, and its employment does not require a conscious decision on the part of the writer. Furthermore, these analyses illustrate some of the distinctive characteristics of CMC. In both of the online examples, the writers used the attributes of technology to gain rhetorical advantage. It seems likely that examination of a larger corpus of interactive text will provide additional insights into the nature of interactive rhetoric. These will have implications for the way writers and readers use the technology, as well as for future design of technology.

4. Further research

Further research is necessary to determine how to calibrate rhetoric for the OLE. An impressive rhetorical performance is not necessarily a convincing speech. Furthermore, a rhetorical performance that brings cheers when delivered from the balcony, the soapbox, or the scholarly journal might bring jeers in the online classroom. Studies are required to learn what works and what does not.

Possibly one of the more appropriate rhetorical devices to consider here would be anticipation—effectively second guessing the addressee's response. Following close behind would be the careful use of implicatures. In an asynchronous environment, where every exchange can be costly in time and effort, anticipating the addressee's information need and taking care to provide the information in a clear and concise manner seem obviously desirable. The difficulty arises in determining just what that means in practice—and therein lies a question for further research.

Ragan and White (2001) say that participants in email communication tend to write casually and spontaneously, but to read formally and deliberately. If this were true, it would be good news. The technology of asynchronous online communication offers teachers and students the opportunity to

craft their words. If readers really do read formally and deliberately, then perhaps, more attention needs to be given to the writer side of the writer–reader equation. One of the benefits of the approach advocated here is that it provides tools for both reading and writing. Seeing text through the eyes of the rhetorician enables the reader to look both *at* and *through* the text, as discussed by Lanham (1995). Additional research needs to be done to establish the extent to which the theory of Ragan and White is true and to explore its implications.

Another area for potential research is the confluence of rhetorical styles used in OLEs. At one extreme, there is the abruptly informal style of email. At the other end of the spectrum, there are the conventions of academic prose. Academic standards for diction, citation, and argumentation may conflict with instructor aspirations for improved social presence. For example, Hübler and Bell (2003) have shown how humor can be used to cultivate ethos in an asynchronous environment. Teachers wishing to adopt their recommendations may find themselves at odds with their own standards for academic excellence. This conflict is not new and may be experienced in the classroom—few viewgraphs are up to APA standards—but emergent conventions of informality and collaboration suggest that further collisions are in the offing. It is possible that teachers can use rhetoric to "set the tone," but setting the right tone, or even knowing what the right tone is, is problematic.

Much work remains to be done in studying the texts of OLEs. Observations need to be made by participants (or by "lurkers") from within the environment, and extensive analyses need to be performed on the transcripts. Other methods need to be considered, such as interviews and thinking-aloud experiments, to better understand the rhetorical processes of online composition and reading. Hence, little is known here, so much remains to be discovered, that it is impossible to suggest what might emerge in the way of new directions and hypotheses.

Finally, interactive rhetoric is incomplete in two ways. First, the tools that happen to be in the interactive rhetoric toolbox are there largely as an accident of history, not a result of planning, and certainly not the result of planning for OLEs. Although these tools are extensive, it should not be surprising that there are gaps. For example, intonation is important in understanding conversation; without access to intonation, discerning affective content can be difficult. Some writers may be better at conveying intonation than others are, and it would be useful to understand how this can be accomplished. It is hoped that some of these gaps can be filled using tools from discourse analysis.

A second area of incompleteness is the theory of interactive rhetoric. The theory appears to explain salient features of online language acts, but it needs to be worked out in greater detail, and as part of this process, it requires extensive testing. For the theory to reach its goals for practical applicability, it should be possible to identify a collection of rhetorical devices that seemed to fit any situation, complete with guidelines for how to use them. Each of these devices can provide a great deal of information in its own right, for example, that first-person ellipsis may indicate dismissive intent on the part of the writer. Each tidbit of knowledge is acquired only after much hard labor. But with a framework to guide these labors, perhaps, the work could be undertaken with a greater sense of direction and deeper understanding for how it fits into the grand scheme of things.

5. Conclusion

It is certain that the research topics discussed here are only a few of a totality of issues in need of attention. This paper has barely scratched the surface. However, there are a number of things that can

now be said. First, rhetoric is alive and well in online in interactive communication. Because the study of rhetoric involves, as much as anything else, adopting a particular perspective on verbal phenomena, rhetoric is ever present, simply waiting to be observed. Second, interactive rhetoric is particularly important to online communication because there are no nonverbal forms of communication. Finally, interactive rhetoric is a research direction with great practical potential. Adger (2001) has noted that researchers in discourse analysis have had difficulty in using their findings to make concrete recommendations. Interactive rhetoric, by virtue of its toolbox approach, suffers from no such limitation. The level of abstraction used in its analysis approaches discourse in a very practical way. One of the hallmarks of a good theory is that it be useful. Having cleared that gate, the rest will come in due course.

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