

To the Graduate Student Council:

I am submitting herewith a thesis written by Shauna Bryant entitled “Toward a More Complete Ethic in Technical Communication: An Examination, Evaluation, and Integration of Some Foundational and Nonfoundational Ethical Theories.” I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a Major in English.

Dr. Michael L. Keene
Major Professor

We have read this thesis
and recommend its acceptance:

Dr. Russel Hirst

Dr. Allison Ensor

Accepted for the Council:

Dr. Anne Mayhew
Interim Vice Provost and
Dean of the Graduate School

(Original signatures are on file in the Graduate Student Services Office.)

TOWARD A MORE COMPLETE ETHIC IN TECHNICAL COMMUNICATION:
AN EXAMINATION, EVALUATION, AND INTEGRATION OF SOME
FOUNDATIONAL AND NONFOUNDATIONAL ETHICAL THEORIES

A Thesis
Presented for the
Master of Arts
Degree
The University of Tennessee, Knoxville

Shauna Bryant
August 2001

Abstract

In this study, I examine several theories of ethics in technical communication. In doing so, I rely primarily on research in technical, professional, and business communication. In particular, I follow the lead of Mike Markel by separating ethical theories into two categories: foundational and nonfoundational.

I examine three popular manifestations of foundational ethical theories in technical communication: universal values (such as honesty), utilitarianism, and Kantian ethics. I show how technical communication appropriates each theory but also how these theories can be problematic if communicators rely too heavily and exclusively upon them.

Next, I explore two important nonfoundational theories in technical communication: dialogic ethics and professional ethics. Again, I illustrate how these theories apply to technical communication, but, again, I find that it can be dangerous to use solely these theories.

Finally, I look to Mike Markel to find an ethical theory that integrates both foundational and nonfoundational ethics. I term this ethic contextual foundational. I explain how this ethic would function in technical communication and also how it could help mitigate some of the problems that arise in relying too exclusively on either foundational or nonfoundational ethics. I use examples from the *Challenger* disaster to illustrate how this contextual foundational ethic might benefit technical communicators.

Table of Contents

<i>Chapter One: Introduction</i>	<i>1</i>
A Definition of Technical Communication	1
A Definition of Ethics	8
<i>Chapter Two: Review of the Literature</i>	<i>12</i>
The Social Contingency of Communication	12
Foundational Ethical Theories	30
Nonfoundational Ethical Theories	33
<i>Chapter Three: Foundational Ethics</i>	<i>39</i>
Universal Values	42
Utilitarianism	48
Kantian Ethics	55
Problems with Foundational Ethical Theories	59
The Need for Nonfoundational Considerations in Foundational Ethics	69
<i>Chapter Four: Nonfoundational Ethics</i>	<i>70</i>
Dialogic Ethics	76
Professional Ethics	85
Problems with Nonfoundational Ethical Theories	94

The Need for Foundational Considerations in Nonfoundational Ethics	102
<i>Chapter Five: Contextual Foundational Ethics</i>	<i>103</i>
Markel's (Contextual Foundational) Ethic	104
Examining Contextual Foundational Ethics	109
Alleviating Nonfoundational Ethics' Lack of Emphasis on the Individual	113
Alleviating Foundational Ethics' Over-reliance on the Individual	120
Alleviating Foundational Ethics' Dependence on Ends	125
Alleviating Nonfoundational Ethics' Impracticality	132
Conclusion	140
<i>Bibliography</i>	<i>142</i>
<i>Vita</i>	<i>165</i>

Chapter One: Introduction

What does it mean to be ethical—to be “good” or “bad”? What actions are “right” or “wrong,” “just” or “unjust”? From at least the time of Socrates, humankind has struggled with these questions. Answering them is difficult, especially in modern society when they deal with technology. How do we ensure that our technology and our communications about that technology are ethical? Some critics maintain that ethics is moot in the realms of science or theoretical technology, where “the facts speak for themselves.” However, others view technical fields such as engineering, biology, and technical communication through a humanistic lens and thus find them open to ethical judgments.

The purpose of my thesis is to determine two things: why issues of ethics are applicable to technical communication, and what common ethical principles or frameworks guide the field. Then, I apply those principles to technical communication, noting both their strengths and weaknesses. Finally, I propose a combination of approaches that could benefit technical communicators.

A Definition of Technical Communication

Understanding the applicability of ethics to technical communication first demands a consensus in defining “technical communication.” Many critics have tried to negotiate a definition, a difficult task in a field whose boundaries are constantly changing

(i.e., Grossberg; Jones; Hayman; VanDeWeghe; Marder; Kelley and Masse). One of the most influential early definitions is given by Robert Hays. Hays describes technical communication in terms of its distinctions from *nontechnical* communication. According to him, technical communication is “more conservative, more the slave of the rule” than nontechnical writing, and technical communicators must “write *correctly*” in “an attitude of utter seriousness” (4). He further explains that since “the appropriate attitude is one of objectivity (if humanly possible), respect for data and their limitations, and caution, . . . technical style demands a specialized vocabulary, especially in its adjectives and nouns” (5). According to Hays, technical communication should attempt to do justice to technical—or, rather, technological—subject matter via precise, objective language. (See also Walter 28-30.) Accordingly, Hays labels technical communicators as grammarians who also “[can] record data and manipulate formulas, and have skill in constructing graphs” (8).

To give statistical validity to this theory of technical communication as correctness and objectivity, Edmund P. Dandridge, Jr. mathematically calculates a redefinition of the field. He does so by comparing the stylistic features of “good” technical writing and “good” nontechnical writing. He looks at characteristics such as total words and paragraphs per communication, sentence length, numbers of words and sentences per paragraph, and frequency of sentence types (simple, complex, compound, and compound/complex). Dandridge concludes, “technical writing is, generally speaking, less complex stylistically—and therefore probably more direct—than nontechnical,

nonfiction material” (20). However, even Dandridge admits that his data does not support his hypothesis convincingly and that his sample (ten pieces each of technical and nontechnical material) is inadequate. Because it is inconclusive and does not help delimit the field, his statistical analyses of technical communication also fall short. Moreover, this general focus on correctness is troublesome when it prescribes forms and styles without giving “the idea of the thing—the job[s they are] designed to do” (Marder 83). By focusing on particulars rather than “organizing principles” (83-84), it unnecessarily limits both the function and scope of technical communication.

As the field of technical communication has become more prominent, this definition, with its stress on grammatical correctness, has become too narrow. In response, other scholars have developed their own definitions. For example, W. Earl Britton suggests defining technical communication according to its purpose: precision of meaning. He supports his claim by stating that “the primary, though certainly not the sole, characteristic of technical and scientific writing lies in the effort of the author to convey one meaning and only one meaning in what he says” (11). To achieve this, he advocates objectivity and detachment (i.e., passive voice and third person), which can enable a technical message to “mean only what was intended” (12). However, it is difficult to accept Britton’s assumption that technical writing can “convey precisely and economically a single meaning” through objectivity (12). In fact, some of the most seemingly objective writing—such as computer manuals and recall notices—can be the most difficult for lay audiences to understand. As other scholars point out, detachment

does not necessarily correspond with understanding, and clarity and concision alone do not define technical communication (Allen 11).

Grappling with such problems, later scholarship has often defined technical communication in terms of its tasks, its genres, and its characteristics. For example, Fred H. MacIntosh sees technical writing as “the sort of spoken and written language required for the world’s work” (25), which he exemplifies in terms of tasks and genres. Among other things, he holds that technical communication serves primarily “to present factual information clearly and concisely; to describe items, equipment, systems, processes, procedures; [and] to make a sound, factual, logical case for a viewpoint” (25). To do so, it generally takes the following forms:

letters, short memoranda, longer memoranda, short reports, long formal reports, information sheets, prospectuses, abstracts, digests, summaries, analyses, studies, profiles, manuals, bulletins, highlights, directives, guidelines, job descriptions, performance evaluations, briefs, position statements, public information releases, proposals, feasibility studies, progress reports, audit reports, fiscal reports, scripts for large-audience oral and media presentations, discussion guides for small-conference groups, and so forth. 25

This method of defining through genres and tasks is hardly unique to MacIntosh. In fact, it survives and is proliferated by modern professional organizations for technical communicators (“IEEE”; Yanez; TC@MTU; Wright). Cataloguing of genres, though, tends to exclude practically nothing. When Britton’s list of forms is combined with his

purposes of technical writing, such as “to plan and write for oral presentation” (25), any writing for any purpose (including presentations from students in academic settings) becomes “technical writing.” Even though MacIntosh later limits his definition to writing that “look[s] outward, to concentrate upon what his reader needs or wants” (28), his definition still encompasses most writing for most purposes—technical or nontechnical. Such broad definitions are accommodating because they omit nothing that perhaps should be included, but they are impractical because they omit nothing that perhaps should be omitted.

David Dobrin tackles some of these issues, suggesting that researchers define technical communication by looking at both the texts and the process of creating those texts. Dobrin offers a new definition: “Technical writing is writing that accommodates technology to the user” (“What’s Technical” 242). Dobrin argues that his definition more accurately reflects what technical writing is. For example, technical communication does not objectively relate information; rather, it accommodates (or translates) information to another person. Furthermore, Dobrin’s domain of technical communication is not distressingly all-inclusive. Instead, it is limited to technology, the application of science to human existence, which is implicit in many disciplines (i.e., law, history, management) (246-47). (See also “About STC” and “IEEE.”) Finally, says Dobrin, technical communication does not prescribe the stylistic or grammatical structures to which communicators must adhere. Instead, it is a process of knowing the audience and understanding its needs. Armed with this knowledge, technical communication employs

various rhetorical tools, which may or may not include features such as passive voice or fewer sentences per paragraph.

Dobrin's definition also specifies technical communication as a communication to a user, implying that technical communication travels from someone who knows about a situation or a product to someone who does not. According to Dobrin, technical communication is hardly limited to this particular path; for example, it can consist of an interchange among experts, all of whom are familiar with the subject matter. However, as Dobrin suggests, technical communication is frequently perceived as communication from an expert to a non-expert.

Jeanne Fahnestock refines Dobrin's distinction, explaining that communication among experts does not always necessitate the accommodation of information, one of the basic goals of technical communication. Because experts often have the same or similar points of reference, their communications focus primarily on "establishing the validity of... observations" rather than on accommodating information (278). She continues,

[S]cientific accommodations [to non-experts] are overwhelmingly epideictic... [T]hey must usually be explicit in their claims about the value of the... discoveries they pass along. They cannot rely on the audience to recognize the significance of information. Thus, the work of epideictic rhetoric in science [and technical communication] requires the adjustment of new information to the audience's already held values and assumptions. 278-

As Fahnestock illustrates, this act of accommodating information is more integral—and more ethically sensitive—in communication from an expert to a non-expert, making it a helpful distinction for a study of ethics in technical communication.

Other scholars expand Dobrin's definition in one important sense: whereas Dobrin limits technical communication to discourse about technology, they view technical communication as including communication about any “particular art, science, discipline or trade” that “helps the audience approach [the] subjects” (Stratton 39). Broadening the focus of the definition so that it is no longer deals only with “technical” subject matter focuses on “what the writing *does* (a focus that... lead[s] to an active definition)” (Allen 11, emphasis added). This more comprehensive definition acknowledges that not all writing about technology is “technical writing” (Allen). Moreover, rather than the focus being on the subject matter, it is on the purposes, processes, and goals of technical writing. With this in mind, John A. Walter expands the definition “to include almost any discipline and the writing about it that has as its purpose the conveying of... information for a specific purpose” (28). This expansion also allows for a better variety of the types of communication with which technical communicators actually work. For example, a communicator who creates directions for assembling pre-fabricated furniture would not be a technical communicator by a definition that limits the field to communications about technology.

Furthermore, these definitions concentrate on technical communication as a process (as well as a product). Doing so exposes the need for the technical communicator

to negotiate and implement a “creativity of diverse resources for various... effects” (Beck 51), illustrating that technical communicators do not simply apply rules and forms but actively analyze situations and information, accommodating them to different audiences. Therefore, I use a combination of these approaches to define technical communication in the following way: *Technical communication is the process and product of communication—written, visual, multimedia, etc.—from an expert to a non-expert. It is designed, both in form and content, to accommodate the understanding and tasks of the non-expert.*

A Definition of Ethics

Having established a functional definition of “technical communication,” I must now define “ethics.” (Here, ethics is interchangeable with “morals” and “morality.”) This term, though, is even more elusive than the term “technical communication” because the study of ethics is ancient and variegated. Because ethics is such a multifaceted term, it would be impossible to attempt to thoroughly define it. Therefore, I offer only a brief summary of the role of ethics in technical communication; I leave a more comprehensive (but nonetheless incomplete) explanation of ethics for the body of my thesis.

Although technical communicators define ethics in varying ways, most agree with the general description given by Louis P. Pojman, author of the comprehensive book on ethics entitled *Ethical Theory*,

Ethics, or moral philosophy as it is sometimes called, is the systematic endeavor to understand moral concepts and justify moral principles and theories. It undertakes to analyze such concepts as “right,” “wrong,” “permissible,” “ought,” “good,” and “evil” in their moral contexts. It builds and scrutinizes arguments setting forth large-scale theories on how we ought to act, and it seeks to discover valid principles (for example, never kill innocent human beings) and the relationship between those principles (for example, does saving a life in some situations constitute a valid reason for breaking a promise?).... [E]thics is concerned with values—not what is, but what ought to be.... [It] has a distinct action-guiding aspect.... 1-2

Based upon Pojman’s terminology, ethics is both the study and the application of ideas of “right” and “wrong,” of “should” or “shouldn’t.” Thus, there are two primary processes in ethics: discovering what actions ought to be engaged in, and participating in those actions. In the field of technical communication, this definition is also popular. Carolyn Rude, for instance, defines ethics as “[a set of] values [that] anticipate[s] the consequences of actions and help[s] people make judgments in particular cases” (362). These definitions are particularly useful because they show that the bases for ethical decisions are values. We can argue two things, though: what are these values, and what is their source? Pojman responds, “Moral theories differ on the scope of morality..., and they differ on the exact hierarchy of values..., but in general they have in common a concern to alleviate suffering and promote well-being” (2). In other words, some values

are universal. Rude goes one step further, though: “[some] bases for ethical choice derive from cultural values and values that are defined by the particular profession” (362). Other values, then, are culturally or professionally driven. To help communicators navigate in these areas, Herbert Michaelson places ethics in the middle ground between personal and professional responsibilities: “[ethics is determined in] the rather subtle conflict between an author’s self-interest and the obligation to provide adequate information for readers” (58). As each of these examples shows, regardless of its origin, ethics is the study and application of humanitarian values. It is, as Lori Allen and Dan Voss claim, “doing what is right to achieve what is good” (5, emphasis in original).

With such a broad concept, which appears to be integrally woven into any activity and even humanity itself, many researchers are advising technical communicators to consider their own weighty ethical responsibility. Since, as Paul Dombrowski states, “each of us is an ethical decision maker...,” each technical communicator must realize that no “one can take his place and face for him the unique particulars of his ethical circumstances. In this sense, he must become his own ethical expert and authority” (*Ethics* 5). If each technical communicator must become an expert on ethics, one would think that every aspect of the subject would have been treated exhaustively. However, Arthur E. Walzer proclaims that “with few exceptions... [ethical] debate has so far tended to move too cavalierly from exhortation on the importance of ethics to a consideration of particular examples, without due consideration of the mediating questions concerning the motives, purposes, goals, and efficacy of ethics and of ethics

codes” (“Positivists” 105). Similarly, David Dobrin argues for a closer look at the moral grounds of technical communication (“What’s the Purpose”), and Dennis E. Minor admonishes that more attention to ethics is necessary for more responsible technical communicators and for a better education of future communicators (440). Thus, many of the most prestigious names in technical communication research agree that we must pay more attention to ethics. It is not enough to counsel communicators “to be ethical” and then to give them examples of ethical and unethical behavior. Rather, we need to explore the *bases* of ethics in the field: What is the “right” that we should do, and what is the “good” for which we should strive?

These questions are the ones that I address. For my purposes, ethics is, indeed, “doing what is right to achieve what is good.” What exactly that “right” and “good” are is a complex matter, though. To uncover a theory of ethics in technical communication, I first show that ethics is integral to the field, dismissing many theories claiming that ethics is outside the realm of technical communication. Then, I introduce several of the most prominent ethical theories in the field, showing how they can help (or hinder) the proliferation of ethical communication. Finally, I attempt to paste together different ethical theories in such a way as to help reduce the problems with the individual theories, bolstering the theory that each communicator must become her own “ethical expert and authority.”

Chapter Two: Review of the Literature

The Social Contingency of Communication

In a study on ethics in technical communication, the first questions are “Is ethics truly a concern in communications about supposedly empirical subjects such as science and technology?” and “If so, how?” These questions date back at least to Aristotle, who advocated excluding ethics from logic (science and technology). Aristotle proclaimed that this logical or certain knowledge is absolute and should be transmitted as objectively as possible. Consequently, such objectivity does not involve value judgments, that is, ethics. Instead, ethics is relegated to the realm of uncertain knowledge: “Rhetoric for Aristotle deals only with what we do not know with certainty such as opinions, beliefs, and likelihood. Science, on the other hand, deals with knowledge that is true and certain. No one debates whether an apple falls downward or upward” (Dombrowski, *Ethics* 19). (See also VanDeWeghe 64-65 and Rubens, “Technical” 3-4.) For Aristotle and his adherents, communication about science and technology is exempt from ethical concerns.

In the 17th century, the Royal Society of London further widened the gap between science and technology and ethics by mandating that the “plain style” be used in writing about science. This style “decried rhetorical excesses and prescribed neutral, objective style as the proper method for reporting results of scientific experiments” (Sanders, “How” 57). This position has helped lead communicators to believe that science is immune from subjective human concerns, including ethics.

In modern society, this split of ethics from science and technology is still evident and has profoundly influenced technical communication. This objective, ethics-free approach to language is what Carolyn R. Miller calls “the windowpane theory” of language: it assumes that language can objectively convey objective reality (“Humanistic”). Related to logical positivism, the correspondence theory of truth, and the objective ideal of language, the windowpane theory here is an umbrella term that covers all of these supposedly objective uses of language. The windowpane theory assumes that a view of the world exists independently of human imagination and thought, and it calls for language to transmit that view clearly—as through a windowpane. (See also Hagge.) However, this philosophy fails to admit that a *view* of the world necessarily involves human interaction because it is a *view*, an interpretation. Furthermore, the windowpane theory is extremely troubling because it excludes ethics from technical communication.

The windowpane theory of language. Many modern scholars view technical writing as a service field whose only purpose is to transmit information objectively. Although prevalent for centuries, this view of scientific and technical communication has been pronounced powerfully in the last 25 years, especially after critics (such as Carolyn Miller) began to question the objectivity of technical communication. One of the most influential declarations of the windowpane theory of language is Elizabeth Tebeaux’s 1980 article, “Let’s Not Ruin Technical Writing, Too.” In it, she asserts, “the primary goal of the basic technical writing course [is] to teach students to document information clearly, correctly, and economically” (822). (Admittedly, other critics asserted this

position before Tebeaux, for example, Mitchell (1976) and Kelley and Masse (1977). However, Tebeaux is cited more frequently than are most earlier critics as one of the primary proponents of the windowpane theory.) Tebeaux implies that, indeed, information can be transmitted entirely clearly and objectively. In fact, she cites this supposedly objective skill as the technical communicator's primary responsibility. Tebeaux continues, "The position that technical writing should be taught against a background of communality and enculturation makes technical writing just another English course and ignores the reason students take the course—to prepare for the writing they will have to do in business and industry" (822). As Tebeaux sees it, the role of the technical writing instructor is to increase the usability of not only the communication but also the communicator. The communicator is technology's functionary; she is rewarded with success—money and promotions: "Trying to give [technical communication] 'intellectual depth'... or give [it] ethical dimensions... makes less sense than telling [communicators] that their paychecks are going to suffer if they can't write well" (823). Questions of value, of right and wrong, are outside the communicator's scope.

Tebeaux defends her position by asserting, "[technical communication's] reason for being... is not humanistic but pragmatic" (824), a distinction that other scholars both before and after her make as well. In 1973, prior to Tebeaux's statement, Barbara Cox and Charles Roland argued that "[rhetoric] involves value judgments and not scientific evaluation, and as such concerns social and not scientific issues" (140). Cox and Roland implicitly deny that science is social and involves social (and ethical) issues. More than

20 years later, Patrick Moore followed their lead, insisting that technical communication is not rhetorical. Instead, he claims it is instrumental (pragmatic), a distinction that limits the ethical dimension of the field. (See also Hagge.) Moore urges technical communicators to explore the helpful instrumental qualities of communication, which he defines “in contrast to rhetorical uses of language” as those whose purposes are to produce results without prompting additional reasoning or supporting logic (103). Despite admitting that “technical communication is not objective,” he advocates just that—objectivity—by pleading for the exclusion of rhetoric so that “critics [do not] deprive students of the sharp, pragmatic tools that they will need to work with others (and sometimes control others)” (114). Flattening out (derhetoricizing) language can itself be humanistic, Moore asserts, such as in cases where unambiguous language enables a doctor to perform a surgery correctly to save a patient’s life. However, Moore fails to note that even such supposed “objectivity” is rhetorical in itself; it is a means of persuading that doctor to function in a given manner. If all language is thus rhetorical, contrary to what the windowpane theory proposes, then technical communicators must be more overtly aware of how their language depends upon social factors. Therefore, they must understand that their communication involves issues of ethics.

Perhaps most distressingly, though, this humanistic-rhetorical/pragmatic distinction implies that ethics is not only *not* a concern but also *unnecessary*. Tebeaux states, “there simply is no time in a basic technical writing course to devote to ethics and inapplicable rhetorical theory” (825). According to Tebeaux, any curriculum or task

whose purpose is primarily pragmatic is, by its pragmatic nature, not humanistic; its practicality exempts it from human issues. Moreover, even if technical communication courses *should* include issues of ethics, there would be no time for such *superfluous* humanistic concerns. (See also Evans.)

Admittedly, some proponents of the windowpane theory acknowledge ethics as a concern in technical communication. However, most agree with John Hagge, addressing ethics within a windowpane-theory framework by equating it with objectivity: “the one overriding ethical imperative in STW [scientific and technical writing], then, is being true to the facts” (472). In a windowpane view of language, ethics in technical communication functions only to further objectivity. Nevertheless, even this seemingly simple admonition is not helpful. If the author of a computer user manual is simply “true to the facts,” providing her readers with her entire set of data, she inundates the reader and ceases to be helpful. In fact, one of the primary responsibilities of the technical communicator is to select the most helpful facts for her audience and to determine how to present those facts so that the reader understands their importance (Orbell; LaRoche). For example, few critics argue that the engineers of the space shuttle *Challenger* were false to the facts of the situation (the danger of the charring O-rings); the disaster occurred because some communicators failed to present information in such a way that the audience was persuaded to see the charring of the O-rings *as a significant fact* (Dombrowski, “*Challenger*” and “Can Ethics”; Moore, “When Politeness”; Walzer, “Positivists”; Winsor). Therefore, highlighting information is an important aspect of the

technical communicator's job. Moreover, it is a rhetorical—a persuasive—function. As such, it forces the communicator to ask herself “What is best?” and “How do I do what is best?”—ethical questions that are denied if the communicator sees her mission entirely in instrumental, nonrhetorical terms.

Kenneth Burke's objection to the windowpane theory of language. The windowpane theory of language has been contested widely, especially by literary critic Kenneth Burke. Burke argues that all communication is socially contingent because it “is a translation, and every translation is an act of compromise” (*Counter-Statement* 54), in part because it is contingent upon the social resources available for the communication (Blankenship et al 82). More specifically to science, Burke concludes, “no matter how much a matter of purely empirical observation ... [a scientific experiment] may seem to be, it actually is a very distinct choice of circumference [subjective points of reference] for the placement of human motives” (*Grammar* 78). Objectivity is impossible, then, because human motives and points of reference can never coincide exactly with another person's since no two humans' experiences are identical (*Counter-Statement* 179 and *Philosophy* 90).

Moreover, simply by naming things and situations, humans imply an attitude and, therefore, a course of action toward them (*Philosophy* 294 and *Grammar* 415; Blankenship et al 84; Gregg 123). For example, labeling a place as “home” connotes attitudes and anticipatory actions toward it. Those attitudes and actions necessarily change from person to person based upon different connotations of the word. Burke by

no means denies the existence of objective reality. Instead, in some of the most prolific work on the subject in modern rhetoric, Burke recognizes that the words used to refer to objective reality are not objective; they do not, in themselves, constitute a full reality. In short, he notes that language inherently involves humanistic concerns and subjectivities—including ethics. Furthermore, Burke’s theory of the subjectivity of language paves the way for later scholarship in technical communication and is the basis for much research in language (i.e., Chesebro and LaRoche). Modern theory reverberates with Burke’s thought:

The rhetorical view of science does not deny “the brute facts of nature”; it merely affirms that these “facts,” whatever they are, are not science itself, knowledge itself. Whatever they are, the “brute facts” themselves mean nothing; only statements mean, and of the truth of statements we must be persuaded. These processes... are essentially rhetorical. Gross 170

The contextualist theory of language: Carolyn Miller. In rhetoric, composition, and technical communication, the most powerful denunciation of the windowpane theory of language came in 1979 in Carolyn R. Miller’s landmark essay “A Humanistic Rationale for Technical Writing.” In it, Miller exposes the nonrhetorical view of science and technology as “a form of intellectual coercion [that] invites us to prostrate ourselves at the windowpane of language and accept what Science has demonstrated” (613). Instead, she advocates what is popularly called the contextualist theory of language.

Miller dismisses the windowpane theory of language on many bases. She deduces, “Facts do not exist independently, waiting to be found and collected and systematized; facts are human constructions which presuppose theories.... Truth, or the knowledge for which science seeks, is ... the correspondence of ideas, not to the material world, but to other people’s ideas.... Science is, through and through, a rhetorical endeavor” (“Humanist” 615-16). “Objectivity” is what mankind agrees it is, and consensus is persuasive persuasion: “Good technical writing becomes, rather than the revelation of absolute reality, a persuasive version of experience” (616). Furthermore, even if technical subject matter *could* be transmitted objectively, we first would have to define the field of technical communication, a task that has evaded scholars. “Reality,” Miller illustrates, “doesn’t come in packages marked ‘technical’ or ‘nontechnical.’ But perhaps any aspect of reality might be treated in a technical or nontechnical manner” (613). We cannot grant rhetorical immunity to a field whose boundaries are imperceptible.

Next, the windowpane theory of language forces technical communicators to focus on recipes for style, readability, objectivity, and audience analysis because it assumes that these features can make the windowpane sufficiently transparent. Such assumptions reduce technical writing to a cookbook of “correct” ingredients and proportions that must produce effective technical communication. However, objectivity alone does not automatically lead to usability. Scott Sanders explains, “Rhetoric defined as the *clear exposition of facts alone*... is often not effective enough to ensure the

reader's understanding, much less the reader's assent and subsequent action" ("How" 56, emphasis added). Miller later elaborates that writing is not only a set of skills but also a means of understanding and interpreting meaning, tasks that cannot be objectified and learned by rote. Moreover, the windowpane theory reduces writing to a set of instructions to be followed without question. By denying writer and reader of the rights to question motives and demand justification for practices, the windowpane theory dehumanizes both parties. It alienates reader from writer and both from their purposes and goals, fostering the idea that humanity is not involved in technical communication. Instead, Miller concludes that technical communicators need not a set of skills that will lead to monetary success but an awareness of the rhetoric implicit in their fields. They can employ this knowledge in a humanitarian way, by not only using it to their advantage but also changing it when necessary ("Comment").

Perhaps Miller's most sobering realization is that the windowpane theory can be dangerous as well as infeasible and irresponsible. If communicators choose one interpretation as "objective," they privilege the ideology implicit in that interpretation as the absolute truth, an act that is ethically frightening. She concludes,

To write, to engage in any communication, is to participate in a community; to write well is to understand the conditions of one's own participation—the concepts, values, traditions, and style which permit identification with that community and determine the success or failure of communication. Our teaching of writing should present mechanical rules and skills against a

broader understanding of why and how to adjust or violate the rules, of the social implications of the roles a writer casts for himself or herself and for the reader, and of the ethical repercussions of one's words. "Humanistic" 617

She comments on this idea again in later writing, stating, "objectivity is a particular socially constructed version of reality that can serve a rhetorical purpose" ("Comment").

Thus, communicators must understand the contextual nature and the rhetorical purpose of their discourse:

In some cases...the tendency to read instrumental documents...as in fact referring to an objective reality accounts for why some people accept as absolutely "real," "true," and "good" what are actually the socially constructed versions of reality that such documents project. For this reason...I think [communicators need to understand the] ethical implications of the texts they produce as well as their purposes for producing them. "Comments"

By regarding communication as interpretation, Miller demonstrates that technical communication involves making decisions about values. And questions of values are questions of ethics.

The contextualist theory of language: Other scholars. A wealth of scholars have followed Miller's lead or enjoyed renewed popularity following her statement. They stress the contextual nature of language and the inevitable inclusion of rhetoric (and ethics) in technical communication. Philip Rubens illustrates this position: "As soon as a human being intervenes in an experimental environment as an observer in relation to

subject and quantifying apparatus, objectivity ceases” (18). Objectivity is lost when the scientist or technician interacts with her subjects; it is twice removed when the communicator subjectively relates the technician’s subjective interpretation. Dr. William J. Winslade, Ph.D., J.D. acknowledges another contextual aspect of language, explaining that even science has its “politics, its schools of thought, its fads and enthusiasm, and in this respect does not differ from other forms of human activity” (60). As a result, even science must admit that its processes are ideological, social, and subjective. In fact, since human reason alone is inconclusive, rhetorical invention can actually guide practical knowledge (John Angus Campbell 295). Consequently, communication theories must be grounded in practical conditions and local perspectives. (See also Westmoreland; Zappen.)

Paul M. Dombrowski delimits the contextualist theory even more, calling it the theory of “social contingency” (“*Challenger*” 99-100). He agrees that a concrete, empirical world does exist, but he admits that “the ‘objects’ of our communications are oftentimes not material objects and raw data but the socially contingent meanings, interpretations, and significances attached to material objects” (99). Regardless of the empirical phenomena language is meant to symbolize, social contingency declares that *to an extent*, our society and culture determine our interpretations of (or beliefs in and about) phenomena and our attitudes (and actions) toward them. Moreover, Dombrowski suggests that social contingency “includes unwitting and passive considerations [of

language]” (100). Thus, humanity does not always consciously construct meaning; often, we arrive at it subconsciously.

After tracing the emergence of many similar arguments, Ronald Arnett concludes that the bulk of modern scholarship argues that “communication or rhetoric... is needed to actualize the ‘humane’ knowledge or the ‘ultimate Idea of Good’” (49). In other words, reality does not necessarily depend upon human interpretation, but its actualization—its relevance to humanity—depends upon human interaction (Campbell, Paul; Scott; Freed; Clark, “Professional Ethics”; Goldbort; Zerbe, Young, and Nagelhout 43-61; Halloran; Marder; Lunsford; Dobrin, “Is Technical Writing”; Berlin, “Rhetoric and Ideology”; Sanders, “How”; Parsons). Moreover, that actualization involves selecting which realities to privilege, and matters of selection are matters of ethics.

The inevitable contextualism of language is not undesirable, though; in fact, it is just the opposite. For example, Mary LaRoche concludes that technical communicators fail to be responsible if they are not subjective and persuasive. She explains, “the technical writer who presents information is really establishing the significance of that information by choosing a context for it” (65). Many audiences of technical writing want—and often need—communicators to make recommendations. Failing to do so can be frustrating for users, especially when communicators resort to ambiguity and “factoids” to avoid suggestions (Allison). This unwillingness to recommend actions or products can actually be irresponsible on the communicator’s part. Brenda Orbell concurs, demonstrating how in certain technical genres (namely report writing), technical

communicators *must* make suggestions. Although this idea seems entirely contrary to the democratic exchange of information that technical communication should foster, it *is* democratic; it is a process in which *all* communicators engage. Even writers of computer manuals enlist in a version of this suggestion-giving when they prioritize information and tasks, and offer explanations and trouble-shooting options. However, in such a view, ethics obviously becomes increasingly important as communicators struggle to decide *which* information is (or should be) of importance to their audiences and how (or if) to present that information. Therefore, as the social contingency of language becomes increasingly accepted, ethics emerges as a matter of greater and greater import.

In fact, other scholarship proves that failing to make these determinations of value can be dangerous. For example, communicators often employ strategies such as passive voice and nominalizations to make their messages appear objective. However, these tactics can falsely imply that humans were not and are not involved in the subject matter, making the matter seem disconnected from humanity. In short, “objective” maneuvers can dehumanize the subject matter and decrease responsibility by making the communication seem inevitable and not the result of human action (Killingsworth 88-89; Rubens 17-18). This danger was tragically exposed in the *Challenger* disaster, when engineers declined to explicitly recommend against the shuttle’s take-off, suggesting that this objective, scientific matter did not need subjective, human intervention (Dombrowski, “Can Ethics,” “Lessons,” and “*Challenger* and the Social Contingency”; Moore, “When Politeness”; Walzer, “Positivists”; Winsor).

There is another serious ethical danger in failing to understand language as contextual: making technology omnipotent. Kenneth Burke warns, “develop neutrality in the vocabulary of the physical sciences (including technology) while leaving prejudice in the vocabulary of social relations, and technology as a power becomes an ominous power” (*Philosophy* 151). If communicators privilege technical communication as truthful and whole, they make it a sovereign power, beyond human control. (See also Westmoreland.) David Dobrin resolves, “The stipulation of objectivity as a form of technical writing is merely another way of coopting the authority of science” (“What’s Technical” 232). Conceding the unlimited authority of technology presents a moral dilemma: “[the objective ideal of language] fosters... the notion that one may comprehensively discuss human and social events in a nonmoral vocabulary, and that perception itself is a nonmoral act” (Burke, *Philosophy* 164). Therefore, communicators must acknowledge the contextual nature of communication and realize that their subjective choices are responsible or irresponsible, ethical or unethical (Schroll).

The radical social constructionist theory of language. The contextual theory of language is increasingly accepted in technical communication. However, scholars disagree as to its pervasiveness. In fact, some theorists have made the contextual nature of language the foundation for not only communication but also reality, a theory called social constructionism. Like the sophists of ancient Greece, the social constructionists hold that man himself creates (not just interprets) reality. From its standpoint of cultural relativism, social constructionism presumes that the social forces at action in any given

situation create knowledge and reality. As a result, communication itself determines not only what is “right” and “wrong” but also what is “true” and “false” (Dombrowski, *Ethics* 21-24; see also Carolyn Miller, “Rhetoric and Community” 81). Through language, the individual learns society’s attitudes toward her and constructs herself according to those attitudes. It is not just identity, though, that society creates; social constructionism holds that society creates truth itself. “Truth,” one such scholar concludes, “is agreement” (Brummett, qtd. in Miller, “Rhetoric and Community” 84; see also Ben-Chaim).

In this radical theory of social constructionism, ethics is indeed a concern. However, in social constructionism, since reality and values are constraints of the communicator herself (albeit, in negotiation with an audience), ethics is concerned less with making decisions about values than with persuasively creating values. Miller warns of the repercussions of this liberal social constructionist attitude; namely, it can actually promote “disaffection” (an increase in consensus but a decrease in human sympathy), make “the good” impossible to define, and fragment society (“Rhetoric and Community” 84-91).

Moreover, when all truth and good become entirely socially constructed, ethics becomes merely a subset of social cohesion. Gregory Clark, for instance, is problematic when he states, “communication engages people in cooperative interactions with others which constitute momentary, temporary, or enduring communities, and [it is] my belief that consent to so cooperate despite differences and conflicts is the act that constitutes

and maintains that community ethically” (“Professional Ethics” 33). According to him, ethics is social unity, but Clark does not specify what that social unity should be used for or even if it is desirable. For example, Kenneth Burke explains that Hitler authored one of the most convincing rhetorics of modern times, creating unparalleled social unity (*Grammar*). If we unquestioningly accept Clark’s equation of ethicality with unity, even Hitler’s rapport would be *ethical*. Obviously, it was not. Social constructionism surrenders matters of right and wrong to society, disallowing many other considerations and making it less suitable for a discussion of ethics than the more moderate contextualist theory.

The need for ethics in the contextualist theory of language. Many scholars explicate the increasing role of ethics in technical communication because of the contextual nature of language. Paul Dombrowski claims that a false belief in the objectivity of technical communication leads communicators to assume “that instituting additional impersonal procedures can substitute for personal ethical responsibility and prevent ethical lapses” (147). He calls this problem the “technologizing of ethics” (“Can Ethics”). In response, communicators must realize that ethics is inherent in technical communication but that it is complex, not a matter that procedures and style guides can completely resolve. Steven Katz agrees because “Technical writing, perhaps even more than other kinds of rhetorical discourse, always leads to action, and thus always impacts on human life; in technical writing, epistemology necessarily leads to ethics” (259). The increased likelihood of action, then, also increases the responsibility of the writer. Katz

later states that if “ethics are culturally relative, we must realize the role rhetoric plays in continually creating, recreating, and maintaining not only knowledge, but values as well” (271). Clearly, the ethical responsibility of the technical communicator is great.

In total, the works I have reviewed here show that technical communicators can no longer believe that their job is to transparently deliver absolute facts. Instead, they must realize that knowledge depends upon social factors at least to an extent. That contingency—as well as the translucent rather than transparent nature of language—gives rise to questions of right and wrong, good and bad, just and unjust: questions of ethics.

Ethics in the Socially Contingent Communication of Science and Technology

An overview. If communication and language depend upon human interpretation at least to some degree, that is, if language is contextual in nature, then communication involves values and, thus, ethics. As Paul Dombrowski states, “Because human communication is always about values and always rhetorical at some level, we should strive to be conscious of the ethical values communicated through the rhetoric of our discourse” (*Ethics* 13). This contextual view of communication raises many ethical questions for the field: How do we interpret phenomena “ethically”? Whose standards of ethics should we use? Are we responsible for how others use the technology about which we write? What is *our* role in the ethical-decision-making process? (*Ethics*).

To help researchers answer these questions, Paul Dombrowski reviews and categorizes twenty-five years' worth of research on ethics and technical communication in three works: "Ethics and Technical Communication: The Past Quarter Century," *Ethics in Technical Communication*, and *Humanistic Aspects of Technical Communication*. In this final work, Dombrowski presents several contextual issues in the field and representative essays. The chapter on ethics presents three ethical standards that technical communicators can use: nature (ethics based on the laws of nature), conformance to good (accepted) practices (ethics based on sound, accepted standards and procedures), and codes of conduct (ethics based on "rules" established by the field) (181-87).

Foundational and Nonfoundational Distinctions. Although Dombrowski's categorizations are useful, Mike Markel makes a more general and interesting classification in his 1997 essay, "Ethics and Technical Communication: A Case for Foundational Approaches." Markel, one of the most prolific writers on the ethics of technical communication, notes two primary ethical perspectives. The first is the foundational approach. It is associated with the modern and classical traditions and is grounded in certain principles (i.e., utilitarianism and the Golden Rule). He explains, "implicit in all foundational theories is the premise that if you can determine the relevant facts in the case, you can apply the theory to determine the appropriate course of action. Foundational theories are therefore deductive, top-down approaches to ethics" (286). The second approach is nonfoundational. It is related to postmodernism, and in it, ethics has no fixed meaning but is "culturally and historically determined" (284) (i.e.,

communicative or discourse ethics and postmodern ethics). Nonfoundational theories “[change] the focus from the individual’s thought processes to the process of open and free discourse among all interested parties.... [They make] no claims about the rightness or wrongness of particular actions or ideas; rather, [they comment] only on the nature of the discourse itself” (287). Markel then demonstrates the shortcomings of both approaches, establishing that neither foundational nor nonfoundational ethics is useful when applied without the other. Instead, he advocates (as do I) the need for a combination of approaches.

Foundational Ethical Theories

Of the various foundational theories, I examine three. Like Markel, I review the two most popular ones: utilitarianism and the Golden Rule as illustrated in Kant’s categorical imperative. However, I first explore approaches that found ethics in a set of universal values.

Universal Values. Some critics attempt to identify foundational values to which communicators should adhere when facing ethical problems. The most modern, comprehensive treatment comes from Lori Allen and Dan Voss’s *Ethics in Technical Communication*, which cites ten such values: honesty, legality, privacy, quality, teamwork, avoiding conflict of interest, cultural sensitivity, social responsibility, professional growth, and advancing the profession. Allen and Voss claim to have analyzed various situations in which technical communicators must make value calls, or

decisions of ethics. Based on those examinations, they propose these ten values as vital to all human existence; in other words, these values represent the most essential “good” to which humans collectively strive (15-46). They are indeed, personal matters but supposedly are ratified unanimously by technical communicators (18-19).

Communicators apply these values by imposing a value analysis on ethical conflicts:

1. Define the *issue* and identify the *stakeholders*.
2. Determine the stakeholders’ *interests*.
3. Identify the relevant *values* that bear on the issue.
4. Determine the values and interests that are in *conflict*.
5. *Apply a model* to rank values according to importance, to weight the values and interests that are in conflict [because no one value is consistently more important than the others].
6. *Resolve* the conflict in favor of the higher (more important) value. 20-21, emphasis in original

However convincing, though, Allen and Voss’s attempt to negotiate the gray area of ethics is problematic in some aspects. First, one of their bases for their selection of values is their own insight into “what is right” (17), which they find in “a combination of personal integrity and social values” (18). Such a personal, subjective approach is inadequate for defining *all* or even *the primary* ethical standards for all technical communicators. Any attempt to reduce ethical obligations to a set of ten words must necessarily be incomplete.

Utilitarianism. Other foundational theories present methods of analysis (rather than sets of values) as ethical bases. The theory of utilitarianism holds that actions are ethical when they produce the greatest good for the greatest number of people. When technical communicators apply utilitarianism, they ask themselves, “What information will help the most people and hurt the fewest?” and “How can I present it so that it helps the most people and hurts or alienates the fewest?” Several scholars apply utilitarian ethics (Schroll; Allen and Voss; Zerbe, Young, and Nagelhout).

Still, this approach has its drawback. It fails to provide a basis for “goodness” and “helping.” Is a result good if it provides comfort, or must it help mankind in some greater way? Are some forms of good nobler than others? (I.e., is pleasure a greater good than comfort?) Second, utilitarianism focuses on the products of decision-making rather than the processes; it prompts technical communicators to ask the question “How can the end result benefit as many people as possible?” at the expense of the question “How—or will—the process of achieving this result benefit as many people as possible?” By privileging the ends over the means, utilitarianism can sanction unethical activities that nonetheless produce some form of goodness or comfort in the end, a sanction that easily could be abused.

Kantian Ethics. Another popular foundational ethic is Kant’s categorical imperative; it focuses more on the process of deliberation inherent in ethical decision-making rather than on the product. The categorical imperative has two primary commandments: at all times, act only in such a way that you should wish your actions to

become universal laws, and always treat other humans as ends in themselves rather than as means to ends. Along with many other critics, Mike Markel argues that the categorical imperative is an ideal method of ethical deliberation (“Ethical Imperative”). Granted, “Kant’s [theory] surely is no ethical panacea. Sometimes, any action a technical communicator takes will sacrifice someone’s human dignity...” (85). Kantian ethics also risks being self-serving. The communicator herself chooses actions that *she* would want universalized, making this ethic inherently individualistic and subjective. Still, this theory forces the communicator to place her actions along a broader spectrum, understanding their relevance and repercussions outside herself. It also forces her to involve the audience in her ethical-decision-making, a task that many other foundational approaches neglect.

Nonfoundational Ethical Theories

As Markel explains, there are two primary nonfoundational ethical theories: communicative and postmodern ethics. Because these two approaches are so similar, though, I combine them under the heading of dialogic ethics: theories concerned with creating values via a dialogue within the community. Then, I explore how technical communication has narrowed down these theories into professional ethics, which can lead to ethics of expediency.

Dialogic Ethics. Many theorists advocate a dialogic approach to ethics, one in which ethics is based on consensus. This approach is dialogic because it is achieved via a

dialogue among community members. One of the first and most illustrative examples of this viewpoint is Richard L. Johannesen in *Ethics in Human Communication*:

Dialogical perspectives for evaluating communication ethics focus on the *attitudes toward each other* held by the participants in a communication transaction. Participant attitudes are viewed as an index of the ethical level of that communication. The assumption is that some attitudes (characteristic of dialogue) are more fully human, humane, and facilitative of self-fulfillment than are other attitudes (characteristic of monologue). Dialogical attitudes are held to best nurture and actualize each individual's capacities and potentials whatever they are. The techniques and presentation of a communication participant could be scrutinized to determine the degree to which they reveal ethical dialogical attitudes or unethical monological attitudes toward other participant. 43, emphasis in original.

In this dialogic process, ethics is a function of how honestly and intensely the communicators (both writers and readers) show respect and responsibility to one another. An ethical dialogue is characterized by genuineness, empathic understanding, unconditional positive regard, presentness, a spirit of mutual equality, and a supportive psychological climate (45-46). Using the dialogic approach, a communicator can help resolve conflicts between goals by prioritizing purposes and actions based on the current situation and then satisfying those goals (51-56). However, this approach can be dangerous if communicators take it to the extreme, if they sacrifice honesty or

responsibility for the sake of consensus or harmony (Miller, “Rhetoric and Community” and Burke, *Grammar*).

Professional Ethics or Expediency. However, some technical communication scholars have reduced the dialogic community to include *only* other technical communicators. This professional ethic claims that morality is whatever the current professional tenor decides it is. In particular, dialogic professional ethics looks to codes of conduct to describe socially-determined, accepted (and hence ethical) industry practices. One of the most frequently cited statements on professional ethics is Gregory Clark’s “Professional Ethics from an Academic Perspective.” Clark claims that ethics is consensus to cooperate; professionally, then, ethics is a consensus among professionals. In another important proclamation on this ethic, Frank Radez elaborates: “[The professional ethic] involves the quality of our work, the results of our professionalism in practice. Ultimately, our characteristic methods and materials result from the communicator’s ethics. The communicator’s ethic [also] must exemplify the values and practices of conduct which will further the spirit of cooperation and accomplishment in corporate publishing” (5). Both of these men suggest reducing the dialogic community strictly to professional writers. As a result, the consensus necessary for nonfoundational ethics now lies solely among technical communicators. However, if communicators find that their only ethical responsibilities are what they, as professionals, deem them to be, they can easily manipulate those responsibilities to serve only themselves. Doing so violates the very spirit of nonfoundational ethics.

Moreover, the professional ethic leads to what Steven Katz terms the “ethic of expediency.” The ethic of expediency equates generally accepted standard practices with ethicality. In short, when ethics is determined by like-minded professionals, it becomes a matter of adherence to certain practices and standards, such as clarity and use of active voice. Because, as Clark states, “the communication ethics that prevails in our civic culture is one that values first and foremost the authority of expertise” (34), this ethic is seductive. It is dangerous, however, because it eliminates from the communicator any responsibility to parties outside of her profession and excuses her from ethical deliberation apart from adherence to textbook techniques.

Contextual-Foundational Ethical Theories

Although many researchers advocate *only* foundational or *only* nonfoundational perspectives, others prefer what I call a contextual-foundational approach to ethics: the belief that ethics may have foundational bases but is also contextual because it is contingent upon social interpretation and interaction. The most eloquent defender of this position is Mike Markel (“Ethics”). He resolves, “My approach is to consider issues that derive from foundational ethical approaches, but to carry out the decision-making process within a communicative [nonfoundational] framework” (293). In this fluid process, the communicator begins by analyzing a situation in terms of either “Kantian rights [or] utility” (295). These approaches are not formulas for doing what is ethical, but they allow the communicator to understand the situation and its repercussions more fully. They help her determine the most ethical course of action. Next, through a give-and-take discussion

with those involved, allowing for a reasonably honest perception of the situation and of the options practically available, the communicator determines whether or not she can implement the most ethical course of action. She then acts in the most ethically responsible way that her individual situation will allow her to. This framework does not deny the presence of foundational ethics, but it does help the communicator decide if her chosen action is feasible and, if not, what other actions are (295). As Markel concludes, “the best [approach to ethics] lies somewhere between radical foundational theories, which know everything, and radical postmodern theories, which know nothing” (295).

Conclusion

Unquestionably, ethics is an important topic in technical communication. The contextual-foundational approach is especially interesting. First, it avoids placing the communicator in a vacuum, a problem inherent in most foundational approaches. If ethics is contextual, the communicator is responsible to those around her. Although this framework by no means excludes personal or even instinctive universal values, it requires the communicator to consider the values and concerns of others. Such consideration is essential since technology and science affect not only the communicator but also society at large. Second, this ethical framework escapes the entirely relativistic, nonfoundational view of ethics. In contextual-foundational ethics, the technical communicator has a very important responsibility to initiate negotiation, a responsibility much less defined in nonfoundational ethics with its emphasis on creating values rather than uncovering them.

Perhaps more importantly, this ethical standard opens the door to certain foundational beliefs (i.e., human life should be preserved) that society may interpret differently but that are nonetheless primary. Sophistic, nonfoundational ethics denies that any values exist unless an audience is persuaded to accept or create them. Therefore, ethics as contextual and foundational most fully takes into consideration the communicator's responsibilities to her subject matter, herself, and her audience.

Chapter Three: Foundational Ethics

Ideally, foundational ethics is universal; it provides a precept to which everyone in every situation should adhere. Earl Winkler explains foundational ethics as “a single, comprehensive, and coherent theory that is based in *universal, basic principles*, which, in their turn, yield particular principles and rules that are capable of deciding concrete issues of practice” (qtd. in Markel, “A Case” 286, emphasis added). Regardless of the situation, foundational ethics provides a useful guide because different circumstances do not alter foundational ethics. Instead, foundational ethics itself determines the “particular principles and rules” for the individual circumstances. The principles inform the situations; the situations manifest but do not alter the universal principles.

This universal applicability gives foundational ethics its power, even in technical communication. For example, Cindy Williams uses the universal principles of utilitarianism and Kantian ethics to examine Intel’s unethical behavior following a problem with its Pentium chip. Because both of these ethical approaches are universal, Williams can apply them to Intel’s Pentium chip crisis just as effectively as any other communicator could implement them in any other situation. (See also Markel, “An Ethical.”) James Porter utilizes another foundational ethical approach—the primacy of truth (“Truth”). In any situation, truth is the technical advertiser’s primary ethical obligation. In each of these instances, the ethical solution is foundational and supposedly universal. That is, it is equally applicable to and successful in every ethical dilemma because it prescribes behavior for particular situations.

Granted, most proponents of foundational ethics admit that it is inadequate alone; even universal standards are subject to negotiation. For instance, although Louis Perica advocates truth as an unchanging universal precept for the technical communicator, he acknowledges that “the technical communicator who pursues ethical standards disregarded by his associates is simply asking for trouble” (6). In short, the communicator cannot disregard the ethics of those around her. If ethics depends to some degree on others, then it is somewhat relative and socially contingent. However, this contextual feature is contrary to foundational ethics, which claims that one ethical basis will *always* work in *every* situation regardless of the other social forces at work in that situation. Thus, Perica admits that foundational ethical bases are not *entirely* universal and unchanging, and that ethics has a contextual (or nonfoundational) aspect.

However, Perica does not expand on these nonfoundational aspects of ethics. Instead, he reverts to the necessity of the universal axiom of truth, concluding that the communicator should follow his own sense of the universal application of honesty. “To thine own self be true,” he declares, because in that adage lies the “answer to one’s individual approach to truth in technical communication” (6). As Perica exemplifies, even though proponents of foundational ethics concede social contingency, too often they simply mention that contingency and then return to exhorting the importance of mastering universal, foundational ethics. By doing so, these scholars can lead technical communicators to assume that if they can master one value or ethical system, their communication will be ethical. From Perica, for example, the technical communicator

might discern that being “truthful” is the ultimate—perhaps the only—ethical goal. Honesty is not the only ethical standard, though, and learning to write truthfully does not guarantee ethical—or effective—technical communication. Therefore, if ethics in technical communication is somewhat contextual, researchers must fully address the corresponding nonfoundational aspects of ethics. If they do not, they can lead communicators to believe falsely that mastering foundational ethical tenets will always produce ethical communication.

In this chapter, I examine three foundational ethical systems, showing how each functions in technical communication. I also reveal how these theories can be dangerous if they give only lip service to nonfoundational ethics, without completely addressing and explaining the contextual aspects of ethics in technical communication. I do not attempt to prove that *all* foundational ethical systems are seriously flawed or that they entirely ignore nonfoundational ethics. I also do not intend to imply that these foundational ethical approaches are substandard or unethical. Rather, I simply illustrate that there are problems with foundational theories that slight the nonfoundational aspects of ethics. I then conclude by depicting some of the drawbacks that could arise if technical communicators continue to overlook nonfoundational ethics and rely too heavily on foundational ethics

Universal Values

Like Allen and Voss's list of ten foundational moral characteristics, most ethical philosophies based on universal values prescribe certain qualities with supposedly inherent ethical worth. Modern technical communication scholarship mandates numerous such values, but the most popular virtue by far is truth or honesty (Buchholz; Michaelson; Perica; Porter, "Truth"; Riley). Allen and Voss, for example, advocate honesty, which they define as

Making one's best effort to provide truthful, clear, and accurate communication.... [I]t means neither falsifying, omitting, nor slanting information with the intent to deceive the audience, and not allowing [others] to do so. In other words, communicating honestly means more than telling the truth and more than not telling a lie. It demands a genuine commitment to convey the message to the audience in the most forthright, comprehensible manner possible. "Ethics for Editors" 62-63

Honesty, then, would seem to be a relatively simple matter. The primary ethical question we must ask is "How might the communicator be truthful and clear?" To achieve these ends, James Porter proposes accuracy, which he associates with readability. For Porter, readability becomes a measure of the ultimate ethical goal: truth. Specifically, he advocates readability formulas, which he claims "generate an exact and fairly reliable readability score" (186). Despite admitting that many communicators distrust readability formulas, Porter uses them to evaluate samples of technical communication. His samples

score poorly on the readability tests, so they indicate a poor standard of truth and ethicality. For Porter, lucidity is the tool through which communicators portray their truthfulness. All readable writing may not be true, but all truthful writing must be readable.

In advocating honesty or truth as a primary ethical value, Herbert Michaelson takes a different approach. He lists several breaches of this truthfulness, warning communicators not to fall prey to them: “sins of omission” (i.e., failing to communicate defects or give appropriate authorial credit), unfair bias (i.e., inappropriately cropping photographs), ambiguity and speculation (i.e., using citations that are unavailable to the public), plagiarism, and indiscriminate publication (i.e., submitting under-developed ideas for publication). Similarly, Louis Perica notes that using statistics inappropriately and deliberately failing to organize in order to mislead the reader both violate standards of honesty and hence ethical responsibility (4). To maintain honesty, he urges each technical communicator to find the “the answer to one’s *individual* approach to truth in technical communication” (6, emphasis added). In another search for honesty in technical communication, Robert Cowen promotes careful fact- and ego-checking to avoid untruths in scientific communication. He warns that desires to make communications more “glamorous” can lead scientific communicators to inflate their images and their content, which can lead to violations of truth—unethical behavior.

With such different definitions of and approaches to truth, is honesty actually *foundational*? Scholars such as Porter, Michaelson, Buchholz, and Perica use truth as

foundational: a “universal basic [principle that should decide] concrete issues of practice” (Winkler qtd. in Markel, “A Case” 286). For them, truth is a universal ideal that all people in all situations can and should achieve. Truth informs the individual dilemmas; the dilemmas themselves should not change the universal basis of truth. In its applications, though, truth does not appear foundational or universal. In fact, truth is contextual, a phenomenon that these scholars do not adequately explain.

For example, Michaelson claims that truthfulness is a primary ethical responsibility of the technical communicator. For instance, the communicator must always give full credit to others for their contributions and always crop photographs truthfully. These are standards of truth to which the communicator must always adhere. However, Michaelson later admits that “a distorted presentation is legitimate if it emphasizes and expands upon the significant aspects of your engineering work, while de-emphasizing the routine and well-known portions” (59). In this statement, he denies the universality and foundational nature of truth. However, he does not expand on this contextual aspect of ethics. If truth is truly foundational and the communicator must always be honest in every situation, how can she make exceptions and distort her work? Michaelson offers no advice to the communicator for navigating this nonfoundational part of ethics.

Porter, too, concedes that “certain forms of deception are not permissible...[but] certain deceptions *are* permissible and conventional” (183, emphasis added). He admits that truth depends upon the relationships among corporations, writers, and audiences; that

is, he concedes that even foundational ethics is somewhat nonfoundational because it is somewhat socially determined. Porter justifies his “permissible deceptions” by explaining that communication is rhetorical and persuasive, and persuasion is selective. Certain selective deceptions are legitimate if they enhance the rhetorical purposes and effects of the communication. However, if there are exceptions to a foundational ethic, that ethic is *not* entirely foundational and universally applicable. Ethics depends upon the contexts of each situation, but Porter offers only readability standards to help the communicator deal with the nonfoundational aspects of ethics. By not adequately explaining the nonfoundational features of foundational ethics, scholars such as these may inadvertently imply one of two things: that nonfoundational ethics is less important than foundational ethics and that foundational ethics alone can suffice in a dilemma, or that nonfoundational ethics is something that does not need to be addressed because it is common-sense, something that all communicators “just know.”

Admitting the contextual nature of ethics gives rise to an important nonfoundational ethical question: “How and when should technical communicators warrant deceptions or *selective* truths?” Both Porter and Michaelson answer by permitting tricks that tell “the truth” but not necessarily “the whole truth.” In other words, a communication is honest if it gives an accurate account of the facts and withholds only unimportant or mundane information. However, assuming that technical communicators should include the important truths and leave out the unimportant ones presupposes that technical communicators intuitively know the truth. Granted, this matter of selection

begins to admit the contextual nature of foundational ethics. However, neither Porter nor Michaelson clearly explains how such contextual selection functions; they do not give the communicator practical guidelines for knowing when and how to make exceptions to the universal rule of truth. Because they simply state that contextual exceptions are permissible but do not *explain* such exceptions, they seem to imply that the communicator will intuitively know when she can allow such anomalies. When scholars such as these assume that communicators simply perceive the truth, they reinforce the notion of a universal, unchanging truth that manifests itself to people in all situations. This quasi-admission of the contextual nature of foundational ethics does not admit the social contextual aspects of ethics or offer communicators guidelines for addressing those aspects. In short, it reinforces foundational ethics' universal, foundational characteristics and slights its nonfoundational ones.

Moreover, assuming that communicators will intuitively know truth and its legitimate exceptions is problematic, as William Buchholz illustrates:

Underlying the...injunctions always to tell the truth, it would appear, are these assumptions: Truth...is objective.... I can strive for and capture Truth in the same way that I strive for and earn money or power. Second, such objective Truth is seen as essentially separable from the individual perspective or collective human experience. Truth transcends individuals and can exist independent of the human mind. Third, Truth is verifiable. Because it does exist outside the individual, others can know it as well I in essentially the

same way...[F]ourth, Truth is discrete. All I need is patience and time to acquaint you with the Truth. 66

In fact, the idea of perceiving absolute truth reflects the windowpane theory of language, which holds that language is a *conduit* for transporting reality and truth. Commanding communicators to “be honest” without helping them understand what and how others perceive as “honesty” assumes that everyone intuitively knows truth and does so in exactly the same way. It presumes that truth is objective. In short, under this foundational ethical view, communication could become a tool for transporting “the truth” from one person (who intuitively knows what truth to present and how) to another person (who intuitively knows what truth to extract and how).

The contextualist theory of language shows that such an objective view of communication is unrealistic and irresponsible because language is socially contingent. Since language is contextual, it cannot objectively convey the truth; thus, communicators must fully understand and implement the contextual characteristics of their messages. The same principle holds true for ethics: communicators need to fully discern the contextual forces that help form “the truth.” As Buchholz resolves, “truth is evanescent—subject to myriad viewpoints and perspectives. The professional, relying on personal judgment, therefore, cannot report the Truth, but can report his or her perspective on the truths, that is, on the truths as he sees them” (67). Truth appears to be a personal and contextual matter.

Utilitarianism

Other approaches to ethics do not mandate values for all situations; instead, they prescribe methods of inquiry that should drive all ethical deliberations. One such process is utilitarianism. One of its founders, Jeremy Bentham, characterized utilitarianism this way:

By the principle of utility is meant that principle which approves or disapproves of every action whatsoever, according to the tendency which it appears to have to augment or diminish the happiness of the party whose interest is in question: or, what is the same thing in other words, to promote or oppose that happiness. Qtd. in Markel, “An Ethical” 82

John Stuart Mill refined utilitarianism, arguing “for a qualitative [as opposed to Bentham’s quantitative] utilitarianism, one that distinguished between higher and lower pleasures” (Markel, “An Ethical” 82). Using either one or both of these definitions, modern technical communicators have appropriated versions of utilitarianism to strive for ethical communication.

For example, after examining fraudulent communications from medical journals and mass media about breast cancer, Michael Zerbe, A.J. Young, and E.R. Nagelhout explain that the communicators involved should have “identified the most vital rhetorical exigency” (57) and fulfilled it. Their method of identifying such exigency is primarily utilitarian; it involves determining *who* should be given consideration and who should be given the *most* consideration. Based on this utilitarian reasoning, the communicator

should give preference to the “good” endorsed by the party who will be affected most by the information.

Similarly, Christopher Schroll examines caller ID units from a utilitarian perspective. He resolves that communicators should provide the most honest, open information that is most necessary for the most people, whether that information deals with caller ID units or military weapons. He proposes an evaluative framework that asks certain questions, such as “What guidelines will allow us to utilize the technology such that *everyone* can reap its potential for better communication” and “To what extent should the United States share satellite-obtained information with allied countries who do not possess such technology?” (151, emphasis added). Answering these questions requires a utilitarian approach. For example, since it is highly unlikely that *everyone* can reap the benefits of any technology, Schroll’s first question becomes a matter of providing the best benefits to the greatest number of people. Likewise, his second question weighs the benefits of America’s keeping the information for itself against the benefits of sharing it. We answer the questions by distinguishing among the “goods” of those involved and engaging in the greatest good for the greatest number of people. In each situation, ethics is a complicated issue.

Cindy Williams likewise uses utilitarianism to explain Intel’s unethical response to its Pentium chip crisis: “Besides understanding its [Intel’s] customers in order to make ethical decisions, a company must also weigh the pros and cons of alternative decisions and choose the one that will *create the greatest good*” (16, emphasis added). However,

these theories basically propose viewing ethics as a foundational formula: in any situation, subtract one good from another and whichever is larger is more ethical.

Moreover, utilitarianism is not a principle advocated by just a few communicators. Instead, some scholars have defended it as an important ingredient in the ethical education of students of technical communication (Golen et al). Proponents of this theory and those who employ it (even unwittingly) hold that communicators can apply the principle of utility to ethical questions and, based on its foundational tenets, find the most ethical end and then work toward that end. Granted, utilitarianism does not claim to be as unchanging and inflexible as do certain supposedly foundational values, and some scholars acknowledge the limitations of utilitarianism even while advancing it as a primary foundational ethic (Johannesen, *Ethics*; Markel, “An Ethical”; Sims; Cindy Williams). However, utilitarianism *does* claim to be a process of ethical deliberation—a foundation—that communicators can apply to *any* ethical situation. Regardless of the circumstances, utilitarianism is supposedly universally applicable. However, utilitarianism is not as foundational or universal as it may appear.

First, foundational ethics must be applicable in any situation, but it may be difficult or even impossible to apply utilitarianism equitably in all situations. Schroll, for instance, assumes that his utilitarian questions can address any problem by determining the goods and rights that communicators must enforce and acknowledge. In any situation, this foundational process of utilitarianism should produce an ethical result. However, Richard Johannesen warns that “We should...be careful to consider the welfare of

minorities when judging the greatest good for the greatest number” (17). Even questions such as Schroll’s might not allow the communicator to acknowledge minorities fully, thus making utilitarianism ineffective in some situations. If foundational ethics is *not* universally applicable in real-life circumstances, then communicators need to supplement it with nonfoundational ethics.

For example, if a communicator needs to document a given computer program, she may believe that most of her audience simply wants to know how to *use* the program. She may determine that the greatest good she can give the greatest number of people is a straightforward, step-by-step explanation of the program. However, the same program may contain several flaws. Under the principle of utilitarianism, the communicator might decide to ignore the flaws (which might affect only a minority of her audience) to make the documentation clearer and less cluttered for the majority of her readers. Under utilitarianism, hers is an entirely ethical decision. However, such an omission can be ethically dubious because it does not fully consider minorities who may be affected seriously by the program’s flaws. Instead, this utilitarian decision would privilege the majority or status quo at the expense of others. As TyAnna Herrington concludes, “Those who follow the utilitarian philosophy can justify almost any act through balancing in favor of a benefit against a cost” (152), even if that cost is sacrificing the needs of minority audience members. (See also Markel, “An Ethical” 82.) Thus, the nonfoundational factors playing in some situations make foundational ethics alone

inadequate for dealing with certain dilemmas. Communicators need to fully understand and be able to implement nonfoundational ethics.

Therefore, utilitarianism demands a more complete examination of its nonfoundational aspects; however, scholars such as Johannesen and Herrington do not adequately address such aspects. Johannesen does not explain how communicators can equitably consider minorities in their ethical decision-making processes. Herrington advocates rhetorical processes for uncovering the contextual aspects of ethics, but she focuses primarily on the communication itself rather than on the social causes and effects of the communication. In both situations, the authors acknowledge ethics as somewhat nonfoundational, but they do not adequately explain when and how to employ nonfoundational ethics competently. In failing to do so, they unconsciously pronounce the nonfoundational characteristics as subordinate to (or even unimportant in light of) the foundational ethic of utilitarianism.

Other forces act upon utilitarianism as well, making it contextual and demanding a thorough treatment of its nonfoundational traits. As Kenneth Burke explains, the principles of utility can be confused or coupled with other, conflicting principles, such as fiscal good:

Despite Bentham's distrust of idealizations, his principle of utility could serve as a rhetorical cloak for purely monetary utility. The close connection between them (in that the profits were earned by business men aiming eventually at mass markets) made it possible for the two orders of motives to become

interwoven. Hence any proposals to neutralize nonutilitarian motives would be influenced by the extent to which the monetary motive had already transcended other motivational weightings. *Rhetoric* 96-97

Burke's objection to utilitarianism especially applies to technical communication.

Technical communicators composing reports or making recommendations may consider the monetary profits and costs as essential "goods" in their communication, and they may make ethical decisions based upon those values. As Burke describes, though, if the greatest good for the greatest number of people is a *monetary* good, monetary utility colors all other principles of good.

For example, if Intel *had* employed utilitarianism in its Pentium chip crisis, there is no guarantee that utility would not have been colored by fiscal values. Assuming that utilitarianism would have solved Intel's problems supposes that Intel could objectively separate one good from another. In fact, though, because it is a for-profit organization, Intel's ideas of good were likely colored by monetary motives, making their utilitarianism subjective and nonfoundational. Since this ethical approach involves social, nonfoundational forces, technical communicators need a complete treatment of the contextual nature of ethics. Again, though, they do not receive such a treatment, making a fair determination of "the greatest good for the greatest number of people" difficult if not impossible.

Money is hardly the only factor that can influence the utilitarian idea of good, though. Richard Johannesen mentions others: "The definition of [utilitarian] 'good' is

often derived from religious, political, ontological, or other vantage points” (17). Amid all these conflicting influences, then, how does the communicator determine which good is the greatest? Most likely, she will use her personal religious or social convictions to answer that question. When she does so, she makes utilitarianism subjective.

Utilitarianism is clearly subjective, then, relying on the individual communicator to determine both “good” and “*greater* good.” Moreover, there is no assurance that the communicator’s idea of good will coincide with the audience’s idea of good. Because it is affected by its context, it is not entirely foundational and requires nonfoundational understanding as well.

This subjectivity necessitates including nonfoundational ethical approaches in the foundational ethic of utilitarianism. However, it is not helpful simply to mention the contextual nature of ethics without giving the communicator guidelines for determining and applying nonfoundational approaches. If communicators do not clearly explain the subjective, contextual aspects of utilitarianism, they can privilege it over nonfoundational ethics, creating the false belief that nonfoundational ethics is unimportant or even that utilitarianism is entirely foundational and does not need nonfoundational ethics. As Kenneth Burke illustrates, these assumptions can be dangerous. In “The Rhetoric of Hitler’s Battle,” Burke explains that Hitler felt that the holocaust was the greatest good (racial purity) for the greatest number of people (the Germans). Unfortunately, though, Nazi Germany failed to realize the subjectivity of their system of ethics (*Philosophy* 191-220).

Kantian Ethics

Another popular foundational ethical process is Kant's categorical imperative (Markel, "An Ethical"; Sims; Williams). The categorical imperative has two primary commandments: at all times, act only in such a way that you should wish your actions to become universal laws, and always treat other humans as ends in themselves rather than as means to ends. Like truth, Kantian ethics has long-standing humanitarian and religious justifications, and it is widely accepted as one of the most important ethical foundations in communication. In fact, one of the most popular composition books, Joseph Williams' *Style: Ten Lessons in Clarity and Grace*, mandates, "Write for others as you would have others write for you" (220). This axiom of universalized good has been appropriated generously in technical communication as well.

Applying Kantian ethics to technical communication, Cindy Williams explains that in Kantian ethics, "[U]niversalizability is...expanded. An action is moral only if you and I and everyone could do it and still have a desirable society" (17). As Brenda Sims explains, actions that cannot be universalized according to the categorical imperative are simply wrong or unethical (285-87). Thus, according to this foundational standard, some actions are foundationally right or wrong. Mike Markel gives an example of Kantian ethics in technical communication: "The reason that we should not lie when we communicate is not that we can get in serious trouble...but that we would be treating our readers and listeners as means only: as customers or as subordinates or bosses, but not as people" ("An Ethical" 84). Although Markel admits that "Kant's [categorical imperative]

is surely no ethical panacea” (85), he holds that if communicators can imagine themselves as their readers and *then* determine the universal ethicality of their actions, they are on relatively sure foundational ethical grounds (85).

Likewise, Cindy Williams claims that Intel could have avoided some of its ethical quandaries (namely, unfair secrecy) if it had used Kantian ethics: “[Intel] could have thought about fairness, which would have required that the company treat its customers only as it would want or expect to be treated by others” (17). The supporters of Kantian ethics generally hold that this foundational approach objectively applies to all situations. For example, although Williams applies it to Intel’s ethical emergency, she concludes that it is equally fitting for other technical businesses in other communication dilemmas. Ideally, in any situation, a communicator can use Kantian ethics because the categorical imperative informs every ethical dilemma and prescribes an ethical course of action.

Upon closer examination, though, Kantian ethics is somewhat subjective and nonfoundational. Kenneth Burke specifically examines Kantian ethics and its focus on individual (in our case, the communicator), what Burke calls “the agent.” Burke explains that even though Kantian ethics stresses the role of the co-agent (the other members of society upon whom the universalized law would be imposed), it nonetheless relies primarily on the agent or communicator. Burke demonstrates,

In deriving causality from the realm covered by our term *agent*..., we need not mean *individual* agents. For if we did, the causal principle would still lack universality. That it, it would lack objective reality.... The causal principle

need not be assigned to the agent in this sense. Instead, we can *universalize* our concept of agent. We can say that such a way of seeing is not the property of just *your* understanding or *my* understanding but of “*the* understanding” in general. *Grammar* 187, emphasis in original

Kantian ethics can make an ethical standard *appear* universal, the product of a generalized, ultimate, and ethical agent. Still, in an actual, individual ethical dilemma, it is the actual, individual agent who must decide which standards apply to the dilemma and must wish an action universalized.

Many scholars have noted how the categorical imperative appears to privilege the agent and reflect *her* ethics: [*You*] act only on that maxim through which *you* can at the same time will that it should become a universal law. As Jeffrey Murray shows in examining Burke, in Kantian ethics, “the focus of the attention...is on the moral agent or self from whom adjudication criteria arise” (36). The same problem thus applies to Kantian ethics as to utilitarianism: how does the communicator *not* privilege her own ideas of rightness and wrongness at the expense of others? Moreover, in discussing the problems of Kantian ethics, Linda Bense-Meyers notes that the precept to universalize laws could actually allow for sadistic or masochistic decisions by those who might actually want to universalize such behaviors (Lecture). Kantian ethics is very subjective, then. Ethical situations are not simply informed by the categorical imperative; instead, they are influenced largely by the individual deciding the situation, who is in turn influenced by myriad social factors.

Since Kantian ethics is contextual, it has certain nonfoundational characteristics. However, technical communicators often overlook its contextual nature. Although they admit that Kantian ethics relies on the individual (making it somewhat subjective) they still hold that the ethical principle itself is unchanging and foundational. Williams, for example, determines that Intel's Pentium chip dilemma has made other businesses more ethically alert and more needful of Kantian ethics. She resolves, "The most basic information can be obtained...by asking questions based on Kantian principles," the answers to which will determine ethical public policy (19). She does not explain how communicators might deal with the *social* factors that inform Kantian ethics, though. For example, as other scholars have noted, the categorical imperative privileges the individual, making it somewhat nonfoundational. Williams does not address this nonfoundational aspect of foundational Kantian ethics. She does not explain how contextual factors such as selfishness among decision makers will affect this foundational ethic. By failing to do so, she intimates that the foundational features of Kantian ethics are more important than the nonfoundational ones. Slighting nonfoundational ethics in this way could lead communicators to focus too exclusively on a foundational ethical approach that neither describes nor addresses adequately the nonfoundational problems in their own ethical predicaments.

Problems with Foundational Ethical Theories

Foundational ethical theories get their power from their status as unchanging, universal precepts. They are popular because they mandate principles that any person in any situation can apply, regardless of special circumstances. None of these ethical theories, though, is truly foundational and universal. Since foundational ethics falls short of universality and constancy, technical communicators also need nonfoundational ethical considerations in the decision-making process. However, when scholars admit that foundational ethics is somewhat contextual, they simply *mention* its nonfoundational aspects without clearly explicating them and showing communicators how to employ them. By not treating nonfoundational ethics as equally creditable as foundational ethics, some research in technical communication could imply that nonfoundational ethics is less important.

Granted, none of the scholarship that I have found on ethics in technical communication states that one foundational approach is *exclusively* sufficient for *every* ethical problem. However, much of it largely does disregard nonfoundational ethics, implying that foundational ethics is more suitable for technical communication than nonfoundational ethics. It is possible that technical communicators could read these inferences as permission to ignore nonfoundational ethics and to use foundational ethics solely. There are two very nagging problems with relying too heavily on foundational ethics, though: not acknowledging the people and factors outside the communicator that contribute to ethical decisions, and focusing too narrowly on the consequences of ethical

decisions. As I explain, these shortcomings illustrate how no one foundational ethic can serve as a solitary ethical theory without reference to other theories and factors. Therefore, technical communicators need to address more completely the nonfoundational aspects of ethics in technical communication.

Featuring the Individual Communicator at the Expense of Other Parties and Factors. The foundational theories of ethics that I have cited tend to leave ethical determinations up to the individual. Many of the supporters of these theories admit that ethics is subjective, but they do not fully explore *all* of the various subjective forces at work in ethical dilemmas. Instead, they mention the contextual features of ethics and then return to its foundational aspects, implying that the communicator will somehow know how to navigate these subjectivities. By assuming that the communicator “just knows” how to interpret foundational ethics and how and when to judge among subjectivities, these ethical theories can place too much emphasis on the individual who is making the ethical decision. They do not fully allow the communicator to acknowledge different contextual aspects of foundational ethics. As a result, they can actually lead the individual communicator to believe that ethics is the same for *everyone*, and that *her* individual ethical values are the same as everyone else’s. These theories can deny the rich contextual nature of foundational ethics, substituting for it an individual’s personal ethic. In an extreme situation, they could even allow the communicator to believe that, since her own value system is in place and reflects (as she sees fit) foundational ethics, she need not fully consider other voices when making decisions of ethics.

Indeed, individual interpretation of foundational ethics is inevitable. Sam Dragga, a renowned scholar in ethics in technical communication, admits that technical communicators rely heavily upon “hunches” or “gut feelings” to make decisions of ethics (“Is this”). (See also Faber 190.) He later advocates nurturing these instincts by modeling one’s life and personal beliefs after heroic (upstanding, ethical) individuals (“Question”; see also David and Graham). John Bryan, too, advises technical communicators to internalize theories of truth and ethics and then to apply them to their professional careers. Similarly, Harley Sachs states that “moral ethics is at the core of [*all* ethics] and may be inseparable” (7), objecting to other scholars’ attempts to separate “professional” [or corporate] ethics from “moral” [or personal] ethics (i.e., Wicclair and Farkas; Shimberg). As these scholars illustrate, foundational ethics relies heavily on personal ethics. Whether based on honesty, utilitarianism, or Kantian ethics, foundational ethical theories hold that for the communication to be ethical, the communicator must be “good” or at least a good applicator of the universal precept. (See Sanders, “Technical” and Porter, “The Role” 128-33.) From such a standpoint, foundational ethics can feature the communicator almost exclusively.

Placing ethical responsibility on the communicator is hardly problematic; undoubtedly, the communicator has a great degree of ethical obligation. However, if ethics focuses too heavily on the communicator, ethics becomes a matter of *perfecting* the communicator. When this happens, technical communication (as a field) runs the risk of mandating morality to its communicators. As Frank Radez warns, “The [scholarship in

technical communication] should not care about our moral code.... It has no business evaluating our religious views” (5). John Bryan agrees, stating that “We [instructors of technical communication] cannot teach integrity” (87). Moreover, when professionals and corporations *do* attempt to shape individual morality, there is no assurance that they are not doing so simply “to keep [others] in line” (Moore, “When Politeness” 274), potentially a morally suffocating practice. If foundational ethics relies too much on the individual’s ethics and attempts to perfect the individual’s morality, it could actually restrict the individual’s values and beliefs.

Even when communicators *do* apply a well-developed personal ethical code to their professional ethical decisions, they may be unconsciously reacting to other, less-ethical pressures. Giacalone and Rosenfeld state, “Research is supportive of the notion that a decision-maker need not be asocial or sociopathic in order to create an unethical situation; but often, due to the very nature of his/her high ego-involvement in the project, (the decision-maker) may be subject to perceptual biases of which he/she has little awareness” (qtd. in Johnson et al 4). Even ethical communicators can make unethical decisions, so allowing the communicator to call the ethical shots can be problematic. In fact, the desire to do “good business” can affect a communicator’s ability to make ethical decisions. For example, Herbert Michaelson urges communicators to be honest so that their credibility and “standing among peers” are not diminished (61). Lori Allen and Dan Voss admonish that “honesty and good ethics are good business” (“Ethics for Editors” 63). (See also Cindy Williams 15.) As Steven Katz explains, these other factors can

actually act upon ethics and become means to *other* ends, “like appeals to give to charity based on the advantage of a tax break” (261). Pleas to the communicator’s desire for reputation and success are motives that may influence her ethical reasoning in less ethical ways. Since a communicator with an excellent personal ethic can be swayed unwittingly by other personal motivations, it is irresponsible to assume that the communicator will “just know” how to “correctly” apply foundational ethics.

However, this feeling of intuitive personal ethics is frighteningly real in technical communication. In his technical communication class, Cezar Ornatowski explains that there is a pervasive feeling that communicators complacently “just know” ethical rights and wrongs: “My students, the ones who do not work, feel very smug about being honest and get impatient when I talk about ethics” (99). A self-assurance in personal ethics could actually lead communicators (at least novice ones) to believe that ethics is not a matter of careful deliberation; it is always something they “just know” without further exploration. Some foundational theories reinforce this idea when they do not thoroughly address *all* of the contextual properties of ethics. Communicators who use such theories could come to believe that nonfoundational issues simply fall into place because they intuitively know the foundational issues. As a result, though, those communicators can fall prey to an individualized, prescriptive, intuitive ethics, which assumes that any communicator can make the “right” choice by applying the “right” value or method of ethical inquiry.

As Carolyn Miller illustrates, ethics—and the decision-making process in general—is not that simplistic (“Technology). James Porter concurs; in fact, he explains

that prescriptive principles (i.e., foundational ethics) can actually alienate practitioners because those principles are enmeshed in theories that do not adequately apply to the pragmatic applications that communicators face (“The Role”). The result is an ineffective ethic that mandates a personal, theoretical morality that is difficult to employ practically. In light of these issues, two important questions emerge: “Does the field of technical communication have the right to mandate personal ethics to its practitioners? Even if it could, would communicators *always act purely and conscientiously* according to those ethics on the job?” If the answer to either of these questions is anything but an unqualified yes, then it is problematic for foundational theories to focus on the ethics of the communicator and to not fully develop the other social factors that inform decisions of ethics.

Privileging the End Over the Means. Many ethical theories tend to be goal-based rather than process-based: “the rightness or wrongness of an action is a function of the goodness or badness of its *consequences*” (Wicclair and Farkas 15, emphasis added). Foundational ethics is especially susceptible to this practice because it tends to focus on the end result rather than on the means. Honesty as a foundational ethic, for example, mandates truthfulness as the *result* of the communicator’s message. Granted, it would be difficult for the communicator’s message to be honest if her means of creating the message were not honest. However, this ethic still emphasizes the ends over the means because a communicator may produce a truthful statement that she purposely crafted to not reveal the *whole* truth. From a foundational viewpoint, the end product is not false, so

the communicator might rest assured that she had fulfilled her ethical obligations. However, if her purpose—or process of creating that statement—were deceptive, then she privileged the end product over the means. Similarly, utilitarianism requires an action that *produces* the greatest good for the greatest number of people. It does not demand that the method of achieving the goal be beneficial to the greatest number of people, only the end product. In other words, these foundational ethics are generally teleological approaches.

Kantian ethics is the exception here. As David Sturges explains, it is a deontological approach to ethics (duty- or process-based rather than consequence-based) (44). Of course, technical communicators could still use the categorical imperative to elevate products over processes. The precept could spotlight the end result, the universalized regulation: act only in such a way that you would wish your actions to become *universal laws*, with the focus on the laws themselves. However, Kantian ethics also demands attention to the processes of the individual's *acting* and the law's *becoming*. Therefore, Kantian ethics *is* a deontological approach that considers the processes of ethical decision making more completely than other foundational ethics.

Of course, the teleological aspect of ethics can be desirable. As Paul Dombrowski explains, the communicator *must* consider the consequences of her actions; she cannot rely simply on a given “system of procedures” for making ethical decisions (“Can Ethics” 146). However, he also warns that ethics *must* be a process, not just a product (149).

Unfortunately, though, foundational ethical theories can neglect the *processes* of making ethical decisions.

Of these teleological approaches, David Sturges cites utilitarianism as one of the most dominant in technical communication (44). Clearly, utilitarianism promotes products over processes. If a communicator must decide which information to include in a user manual based on providing the greatest good to the greatest number of people, she first chooses a desirable “good”—an end result—and then works toward achieving it. Whatever routes she takes to achieve that good are secondary; they are sanctioned because the end is ethical. The end justifies the means, even if those means involve dismissing important social factors. Utilitarianism generally disregards the possibility that the process of achieving its end might not be moral. Some scholars show that we must have ethical reservations about a system of morality that can privilege the ends at the expense of the means, ignoring the social factors that are involved in the decision-making process (Dragga, “Is This”).

Similarly, using humanitarian values such as honesty favors products over processes. For example, in creating a graph for a technical report, a communicator may decide that “truth” demands her to label both axes, providing as complete information as she has available. Indeed, her end product may be truthful. However, if she has given more information than necessary and the graph is no longer readable, her communication is truthful at the expense of being useful, a sacrifice that can actually make the communication *less* good and *less* ethical. If a user cannot interpret and employ the graph

and its contents, then the user is ill-informed and could make unnecessary—even dangerous—misjudgments. The communicator must fully appreciate the contextual nature of truth. She must understand that her ideas of truth do not automatically correspond with her audience's. As a result, she cannot strive only for an ethical product, a document that is truthful by her own standards. She must also seek an ethical process, a means of understanding, working with, and perhaps accommodating her audience's standards of truth.

Many scholars have noted the dangers inherent in privileging ends over means. In a powerful statement on the pitfalls of such consequentialism, Sam Dragga asks, "If I decide the ethics of a situation according to its consequences, am I ethically obliged to weigh all of the consequences?" ("Is This" 263). He gives the following example: most communicators agree that it is ethical to increase font size and margins in a proposal to make it longer and hence more impressive-looking. They justify this action because they deem the consequence—a longer proposal—as ethical according to their personal foundational ethics. However, Dragga questions if these communicator are being ethical by using more paper than necessary, especially given our limited natural resources, including trees. The communicators may not feel the need to consider *this* consequence because they may have already deemed their *chosen* consequence as ethical. When communicators focus on products rather than processes, they do not fully appreciate all of the options available to them. If they do not appreciate different options, they cannot appreciate the different social forces that influence and are influenced by those other

viewpoints. Therefore, privileging the ends over the means can actually allow the communicator to minimize the importance of the nonfoundational aspects of foundational ethics.

In response to such problems, many technical communicators are calling for an increased understanding of the *processes* of ethical deliberation (Nilsen 45; Sanders and Killingsworth 129; Dragga, “A Question”). Carolyn Miller demands that we understand our tasks “as a matter of *conduct* rather than of production, as a way toward the good of the community rather than of constructing texts” (“What’s Practical” 23). Marshall Kremers calls this process “ethical thinking or reasoning” (58). Perhaps arguing most persuasively for a closer examination of ethical processes is Steven Katz in “The Ethic of Expediency: Classical Rhetoric, Technology, and the Holocaust.” Katz examines a memo written by a technical communicator in Nazi Germany and notes the memo’s technical expertise. As a product, it is technically perfect, illustrating outstanding communication principles as it recommends changes to Nazi gassing buses (256-59). (These buses were deemed “more efficient” and “humane” for exterminating women and children in Nazi Germany in the early 1940s, before the gas chambers and death camps were fully operational (256).) However, Katz explains that in this memo, “the focus is on expediency, on technical criteria as a means to an end” (257), and eventually that expediency becomes “the necessary good that subsumes all other goods, and becomes the basis of virtue itself” (263). The end actually becomes the means, justifying or obliterating any objections—ethical or otherwise—that might stand in its path. Obviously

in this case, the ethical repercussions of subsuming or ignoring processes in favor of products were disastrous.

The Need for Nonfoundational Considerations in Foundational Ethics

Modern technical communicators owe themselves, their profession, and their audiences a fuller examination of the mitigating social factors and the ethical processes inherent in making ethical decisions, considerations not always made fully possible by foundational ethics. Some scholarship on foundational ethics implies that nonfoundational ethics is not important or is “automatic” for technical communicators because it gives less attention to nonfoundational ethics. Instead, scholarship in ethics in technical communication needs to address nonfoundational ethics just as completely as foundational ethics. Communicators cannot competently address their variegated ethical dilemmas if their ethical theory does not fully admit and explain the contextual forces that affect decisions of ethics. In short, communicators need nonfoundational ethics as well.

Chapter Four: Nonfoundational Ethics

Nonfoundational ethics has been called situational or relative ethics. In it, there are no universal, unchanging values or bases. Instead, ethics changes to accommodate each individual situation. It changes because, in each set of circumstances, members of a community mediate with one another to determine their needs and values. Those values determine ethics. In this nonfoundational ethics, Mike Markel explains that “the words *reason*, *knowledge*, and *ethics* do not have fixed meanings; rather, they are culturally and historically determined.... [N]onfoundational approach[es do] not offer principles or guidelines about what is appropriate ethical behavior, although [they] might offer principles or guidelines for analyzing an ethical problem” (284). Thus, ethics is contextual, not universal.

One of the first and most frequently cited proponents of nonfoundational ethics in communication is Thomas Nilsen. Nilsen does not deny that individuals have their own values and belief systems, or that these values may be foundational, based in religious or humanitarian convictions. Nor does he deny that individuals may make personal ethical decisions outside of a nonfoundational framework. However, he does state that *the most ethical communication* is that which is open, inclusive, and situation specific. Both this process of negotiation and the resulting action are nonfoundational because there are not set outcomes; the values and subsequent actions change according to the values of the individuals involved in each separate ethical dilemma. Thus, contrary to the precepts of

foundational ethics, Nilsen and nonfoundational ethicists advocate “ethical guidelines, not fixed criteria” (Johannesen, *Ethics* 25)

Nonfoundational ethics strives to be a more *democratic* approach to ethics, especially when compared to foundational ethics, which prescribes values for all people in all situations. Richard Johannesen explains that nonfoundational ethics is democratic because it is a system of inquiry that

values...the intrinsic worth of the human personality, reason as an instrument of individual and societal development, self-determination as the means to individual fulfillment, and human realization of individual potentialities.

Necessary democratic procedures include unrestricted debate and discussion; varied forms of public address, parliamentary procedure, and legal procedure; freedom of inquiry, criticism, and choice; and publicly defined rules of evidence and tests of reasoning. *Ethics* 24-25

Dennis Day elaborates on the democratic ideal in nonfoundational ethics. For him, ethics is not any “particular set of substantive values” (such as honesty or utilitarianism) (qtd. in Johannesen, “Ethics” 28). It “is a commitment to means, not ends” (28). Day explains that such ethics does not value the end result—the reasoned solution—over the means of achieving that result—an open discourse. In fact, he states that ethics requires a “commitment to debate, not a commitment to reason” because “the essential feature of debate is the confrontation of ideas” (28). The open discussion of ideas and values is the primary goal of nonfoundational ethics. The end result is not a manifestation

of some eternal verity; rather, it is the result of negotiation among positions. This ethic “accepts certain ends, i.e., decisions, because they have been arrived at by democratic means” (28). In other words, although individuals may hold their own commitment to ends, the collective society must constantly commit to the means: determining its wants and needs, and renegotiating its own values. In nonfoundational ethics, because society generally decides on its needs and thus its values, meeting those values is good; it is ethical.

Many scholars advocate this nonfoundational approach to ethics. They agree that society—not some universalized and perhaps obsolete rule or system of morality—should determine values and thus ethics. Scott Sanders, for example, recommends “persuasion through mediation” (“How Can” 64), an ethic that is negotiated among writer and audience. The writer then adopts that ethic and tries to persuade her audience to cooperate with it. H. Lee Shimberg also promotes a socially constructed ethics, but he urges communicators themselves to come together as a *profession* to determine their values and hence an ethical code. Whether nonfoundational ethics is ordained by the profession, a particular audience, or society at large, it is nonfoundational: the group sets its values and its ethics according to its needs at a particular time under particular circumstances.

Nonfoundational ethics has its limitations, though. Admittedly, most researchers of nonfoundational ethics grant that this approach cannot by itself solve every ethical dilemma. They concede that socially determined, changing ethics has its drawbacks and

that, in fact, it may be impossible to have a system of ethics that is not influenced by universal, foundational values. For instance, Richard Johannesen confesses that “the increasing difficulty of achieving genuine dialogue between men of divergent natures and beliefs represents the central problem for the fate of mankind” (“The Emerging” 375). It is difficult to believe that truly democratic, consensus-driven ethics is possible in an age of diversity and plurality. Often, individual and foundational values make nonfoundational ethics impossible.

However, Johannesen does not explain how nonfoundational ethics can overcome this problem, how it is a useful system of ethics in spite of this difficulty. Instead, he reinforces nonfoundational guidelines by imploring communicators to avoid superiority and to encourage other parties to participate in the communication process (376). How, exactly, the communicator should achieve these goals Johannesen does not state, though. Rather than elaborating specifically on how communicators can overcome the difficulties inherent in nonfoundational ethics, Johannesen returns to the principles of nonfoundational ethics. In doing so, he reinforces the guidelines of nonfoundational ethics but does not fully consider some of its most basic problems. Excluding such questions could lead the reader to believe that the restraints upon nonfoundational ethics are insignificant and that this system of ethics is more solid and certain than it is.

Granted, Johannesen does admit that there are problems with dialogic ethics: “A critical issue is, in fact, whether dialogue can be subjected to empirical research” and “If empirical research on dialogue is undertaken, what methods might be employed?” (378).

Each of Johannesen's reservations about dialogic ethics (as well as his ultimate recommendation for future research) deals with empirical research. He does not address whether such a dialogic approach is even possible in mass communication. By simply bypassing this question, he leaves the reader assuming that dialogic ethics *must* be feasible since the primary question is one of how to conduct research. And such assumptions assert the power of nonfoundational ethics without truly addressing some of its most fundamental dilemmas.

In the same article, Johannesen recognizes the *foundational* ethics that influences dialogic ethics: "One...does not forego his own convictions or views, but he strives to understand those of the other and avoids imposing his own on the other" (375). Thus, an individual may have ideas of value and ethics that have been determined by universal precepts such as honesty or by Kantian ethics. Still, according to Johannesen, in dialogic ethics the individual should attempt to acknowledge and respect others' values as completely as her own. How, then, does the individual deal with the foundational ethics that affect her own participation in dialogic ethics? Johannesen offers no solution to this question. He advises a "willingness to become fully involved with each other by taking time, avoiding distraction, being communicatively accessible, and risking attachment" (376). However, these guidelines do not help the communicator *practically* mediate between the inevitable influence of foundational ethics and her need to create social values within a system of nonfoundational ethics.

Again, then, this research on nonfoundational ethics slights the foundational aspects of morality that necessarily affect ethical dilemmas. By not completely discussing these foundational characteristics, such research sends the message that foundational influences are insignificant, an assumption that can be dangerous if it leads the communicator to believe that society always and unquestionably has the right to determine and impose values on others.

In this chapter, I look at two primary divisions of nonfoundational ethics: dialogic ethics and ethics of professionalism (which leads to ethics of expediency and professional codes of conduct), explaining how each has been appropriated in technical communication. However, I also show how no ethical system can be *completely* nonfoundational because a true consensus of values is almost impossible and because foundational values constantly infect systems of nonfoundational ethics. Therefore, nonfoundational ethical research needs to fully address both its own limitations and the role of foundational ethics. However, I find that much research in nonfoundational ethics does not adequately address either of these issues, and I illustrate how nonfoundational approaches can be problematic if they do not fully explore these problems.

I do not undertake to prove that *every* nonfoundational ethical approach is gravely deficient, entirely disregarding its own limitations and foundational traits. Instead, I show that there are problems when scholars represent nonfoundational ethics as too complete in itself or overlook foundational ethics. I conclude by exploring some serious problems with nonfoundational ethics that could occur if technical communicators continue to

slight foundational ethics. Although the drawbacks I cite may be extreme, they nonetheless warn of the dangerous possibilities of depending too greatly on nonfoundational ethics.

Dialogic Ethics

In one of the most important statements on dialogic ethics, Thomas Nilsen explains that in this nonfoundational ethic, “What we seek is the maximum freedom of choice possible in any given case” (46) because “morally right speech, like any morally right behavior, is that which contributes to the well-being of others, to their fulfillment as human beings” (18). Dialogic ethics is that which allows for the fullest expression of each individual. Nilsen continues,

[T]he good is served by communications that preserve and strengthen the processes of democracy, that provide adequate information, diversity of views, and knowledge of alternative choices and their consequences. It is served by communications that provide significant debate, applying rational thought to controversial issues, recognizing at the same time the importance and relevance of feeling and personal commitment. Further, the good is served by communications that foster freedom of expression and constructive criticism, that set an example of quality in speech content, in language use, and in fair play and civility. 18

The basis for dialogic ethics, then, is respect for human viewpoints and for the subjectivities of human experience. However, there are no rules for achieving this respect; the only mandate is to strengthen a democratic, consensual approach to ethics however possible in each individual situation. More importantly, there is no standard that this ethic must meet, no universal value that it should ultimately achieve. Instead, the discourse community itself determines what its values are and acts according to those values, which will change from group to group and situation to situation.

In technical communication, there are many appropriations of dialogic ethics. As James Porter explains, dialogic ethics does not seek a universal good but a local consensus (“Developing” 215-16). J. Blake Scott calls this system sophistic ethics, which is based on “*nomos*, a word that can refer to...anything determined by people....[S]ophistic ethics,” he concludes, is “relative and determined by people in specific situations” (188, 192). (See also Berlin, “Poststructuralism.”) Dale Sullivan also advocates a culturally determined approach to rhetoric and ethics, which he calls epideictic (“The Epideictic”). Whatever its title and description, though, each of these theories has in common the belief that a community determines values; if the community—rather than a preordained set of beliefs or system of inquiry—ordains values (which are the heart of ethics (see Chapter 1)), then ethics is nonfoundational. (See also Chesebro; Johannesen “Emerging”; Johannesen *Ethics*; Keller and Brown.)

Other technical communicators have applied dialogic ethics to practical ethical dilemmas, showing how nonfoundational ethics could be helpful in the workplace.

Herndl, Fennell, and Miller implicitly utilize it to investigate several communication disasters, including the Three Mile Island accident. (The Three Mile Island incident was the worst nuclear power disaster in American history. On March 28, 1979, a nuclear reactor at a nuclear plant in Three Mile Island in Pennsylvania overheated and the uranium core partially melted. As a result, the plant and surrounding areas were exposed to radioactive water and gases (“Meltdown”; “Three Mile Island”).) Herndl, Fennell, and Miller conclude that some of the nonfoundational social characteristics of the communication leading up to the accident made understanding and negotiation difficult. Instead of recognizing and mediating these individual differences, some communicators took a self-concerned approach to the dilemma. One engineer, for example, failed to state his purpose clearly and was indirect; his supervisor responded with sarcasm (285-90). These communicators were concerned with their own agendas and did not recognize the values and needs of one another—their audience. The communicators did not fully and equally consider their audiences and did not allow the audiences to express themselves. Hence, from a nonfoundational viewpoint, they were not ethical.

Similarly, Craig Waddell uses dialogic ethics to investigate the responsibilities of communicators who document environmental policies. He proposes that when disputes arise concerning environmental matters, the communicator should mediate between the values and needs of the environmental experts and those of the lay public. Together, the two parties should determine their needs and negotiate values that correspond to those needs. Since needs shape values, and values shape ethics, if the two parties act according

to their negotiated values, they are acting ethically. In short, dialogic ethics is ethical because it does not force people with different values to adhere to a universal set of beliefs. Rather, it concedes a variety of needs and the necessity of human beings to determine their own values, which are specific to the needs of individual people and situations.

If dialogic ethics is truly nonfoundational—if members of a discourse community equitably determine its needs, values, and ethics for each individual situation—it might be ideal for modern pluralistic society. However, dialogic ethics is not truly nonfoundational. It depends largely upon the values of each individual in the discourse community, and those values may be foundational. Dialogic ethics has other flaws, too, such as being too difficult to implement. To be helpful to technical communicators, research in dialogic ethics must fully address these issues. Often, though, it does not. When dialogic ethics does not elaborate on these problems, it sends the message that individual (often foundational) values are less important than nonfoundational ones and that the flaws in nonfoundational ethics are insignificant.

For example, when proponents of dialogic ethics admonish communicators to pursue ethics as mediation among voices, are they requesting something beyond the communicator's scope? Practical examples suggest they are. Craig Waddell, for example, urges the communicator to negotiate the values of the lay public and environmental experts when documenting public policy. Indeed, there are several rhetorical steps that the communicator could take to pursue such a moderation. She could avoid jargon so that

the non-expert public can understand the experts' processes and policies; she could facilitate discussions with the experts so that they can become familiar with the needs and desires of the public. However, these actions are secondary to the environmental policies themselves. The communicator can try to make the policies more accurately reflect the general needs of the general public, but she will probably be unable to change them. This ethic appears to be outside of the communicator's scope here, a problem that Waddell (and much research on nonfoundational ethics) does not address. If this issue is not considered, communicators could come to believe that it is *not* an issue, that they should be able to employ dialogic ethics in *every* communication situation. However, the communicator may find that, in actuality, truly dialogic ethics is impossible for her in certain situations. If a communicator cannot pragmatically implement an ethical theory, the theory is not helpful. Thus, researchers in dialogic ethics must fully admit the limitations of nonfoundational ethics and help communicators find alternative ethical frameworks that *are* available to them, even if they are foundational ones.

Moreover, even if communicators *could* completely employ dialogic ethics, giving full consideration to every voice that deserves it, how would communicators know which voices deserve consideration and which do not? In writing a manual explaining technical machinery, it is unrealistic to assume that a communicator can *fully consider* every voice that will encounter her manual. Her only recourse is to engage in the best audience analysis techniques available to her. By doing so, though, she stereotypes her readers, a process that does not allow full consideration and expression of each individual

voice. Giving expression to each opinion is increasingly difficult in the 21st century, when communicators often write online help documents and create web sites for mass audiences. It is impossible to allow every individual a voice, but research in nonfoundational ethics tends to overlook this quandary. Scholarship in nonfoundational ethics falls short again when it does not help the communicator determine what to do when dialogic ethics becomes impossible. In fact, such a failure implies that the communicator either will intuitively know what to do in such situations or that such problems are not important. Either way, the ethic is incomplete.

If the communicator assumes that she will intuit which voices to heed (and negotiate with) and which to ignore, she is not truly employing dialogic ethics. In these situations, the communicator relies on her own personal values to judge the worth of others' arguments, and she does not truly consider the values of others. Furthermore, the communicator may not know that she is using dialogic ethics incompletely because she may not realize which values she unconsciously privileges and, therefore, what counter-values she should regard. Craig Waddell states, "it is said that a fish in the ocean would be the last to discover water; likewise, when we are immersed in the prevailing values and assumptions of our culture, their status as values and assumptions is all but invisible to us" (211). In fact, if the communicator does recognize her own implicit values and assumptions, she might actually find values similar to her own to "negotiate" with, unconsciously privileging one voice—her own—above all others'.

Perhaps because this ideal is so problematic, some technical communicators have refined dialogic ethics, equating it with the rhetorical concept of ethos. This dialogic ethical guide requires that the communicator create an ethos that is consistent with or at least includes the audience's ethos. In short, because ethos reflects society's values, a social ethos becomes a measure of dialogic ethics. James Porter simply and succinctly defines social ethos:

Collaboration occurs between writer and audience, the audience becomes the writer, the writer becomes one with the audience. The ethical implication here then is not just that it is to the advantage of the writer to "analyze" audience, but to "identify" with audience, negotiate meaning with the audience, and work to blur those roles. "The Role" 134

Ben Barton and Marthalee Barton agree; they outline ethos as a socially determined role that the communicator must fill. She should negotiate her ethos from among the various forces and people involved in a situation. When the communicator adopts that ethos, she is successful. Her ethos is dialogically ethical. Charles Campbell refines the concept of ethos: "[Ethos involves] the individual in a deliberative community and thus [has]...an ethical dimension as well as a transactional one" (133). Although Campbell admits that ethos is not synonymous with ethics (135), he cites ethos as the mediation and resulting relationship between writer and audience. Moreover, he encourages communicators to meet the demands of different situations and different audiences by constructing different ethoi. From a nonfoundational ethical view, this

concept of ethos is a reinterpretation of dialogic ethics because it allows the individuals in each situation to ascertain their needs, privilege the corresponding values, and create an ethical ethos that conforms to those values.

A strong ethos can be desirable in technical communication. Dorothy Guinn explains that a positive ethos is highly persuasive, convincing the audience that the communicator is an expert on her topic and has their best interests in mind. Scott Sanders, too, examines rhetorical ethos as a method of audience and self-analysis that contributes to the most persuasive persona and, hence, the most effective communication. This ethos can make the audience more willing to cooperate with the communicator, creating beneficial social collaboration.

However, even if it is socially constructed, ethos can be used to manipulate and privilege one particular party. Carolyn Miller explains, “Ethos is a disposition which, *when held in common*, comes to seem right, *ethical*, and *therefore persuasive*” (“The Ethos” 184, emphasis added; see also Carolyn Miller, “Technology” 228). The persuasive nature of ethos could be used to exploit others, as Scott Sanders unwittingly shows. He comments that “Persuasion based on the offer of social cooperation is not just an ethical way to play the game.... It is the name of the game. And it wins” (67). Here, Sanders simultaneously equates persuasion with ethicality as well as personal success, motives that may at times exclude one another. Communicators may want to create a social ethos, but if they do so for personal gain, they may not be acting ethically. When communicators use a socially constructed ethos as dialogic ethics in order to win over the

audience and achieve personal success, they are not adhering to nonfoundational ethical guidelines to treat others equitably and to determine values based on the *common* good.

Such self-concerned persuasion violates one of Johannesen's primary tenets of dialogic ethics: a spirit of mutual equality. Johannesen maintains that in dialogic ethics, "the exercise of power or superiority is to be avoided. Participants do not impose their opinion, cause, or will. In dialogic communication, agreement of the listener with the speaker's aim is secondary to independent, self-deciding participation" (*Ethics* 46). Moreover, Johannesen specifically lists persuasion as incompatible with such an ethic (47).

Granted, Johannesen admits that persuasion itself is inevitable and not harmful. He states, though, that "In dialogue, although interested in being understood, and perhaps in influencing, a speaker does not attempt to impose his own truth or view on another and he is not interested in bolstering his own ego or self-image" ("The Emerging" 375). As he explains it, such persuasion must not be selfish, a rule that modern technical communicator Scott Sanders appears to violate when he states that "The persuasive strategy is to encourage the reader to regard the writer as a similarly objective observer" ("How" 67). Although Sanders encourages the communicator to understand and work within the reader's context (68), he undermines his statement by declaring that such techniques help the communicator "win" (67). The idea of "prevailing" suggests that the writer and reader are at odds, making the process competitive rather than cooperative.

Therefore, a communicator simply cannot give full, equitable expression to other voices and arrive at an ethical consensus if she is attempting to win them over to her own purposes, for her own gain.

From the various limitations on dialogic ethics and social ethos, dialogic ethics is not truly nonfoundational. It has serious limitations and actually involves personal (sometimes foundational) values. Therefore, it needs to more completely address such issues.

Professional Ethics

If dialogic ethics seeks a nonfoundational basis by negotiating needs and values among society at large, professional ethics seeks that same negotiation only among members of the professional organization. In fact, many technical communicators endorse a formal, systematized statement on ethics, a professional code of conduct, which defines ethics for the field. Especially after 20th century ethical boggles such as Watergate, the Society for Technical Communication determined to write such a code to help communicators achieve “professional competence” (Schaefer 4). Arthur Walzer asserts that simply attempting to define and redefine such a code is ethical in itself because it spurs discussion and awareness of ethics (“Professional Ethics”), and most communicators would argue that our profession *should* foster competence and ethical inquiry. (See also Arnett 51.)

Perhaps the most powerful statement in favor of professional ethical standards and codes of conduct comes from Frank Radez. Radez explicitly states that the *only* ethic applicable to technical communication is a professional ethic, which would involve several components:

1. Guidelines for the materials written (completeness, quality, accuracy).
2. Guidelines for the way they are written (originality, methods).
3. Guidelines for the relationships of those involved (writer to publisher, to superiors, to peers, to other professionals, and to subordinates). 5

Radez also suggests itemized standards for the communicator's semantics, mechanics, and methodology (5).

Radez's proposed professional ethic is nonfoundational because it is determined by members of the profession. Radez definitively denies that this ethic is foundational; he advocates it because technical communicators too often "confuse it [ethics] with morality and law" (6). Radez uses morality and law as universal standards, which are *not* the proper bases for ethics in technical communication. Instead, ethics for technical communicators should consist of guidelines that direct the communicator's professional activities. These guidelines are determined by the communicators themselves. In fact, Radez proposes that the Society for Technical Communication (STC) poll its membership about their ethical needs and beliefs. Then, based upon the members' professional ethical concerns, STC should have a code of ethics that accurately reflects the professional needs and values of its members. Then, technical communicators could

use this code to address their day-to-day ethical dilemmas. Ultimately, these standardized practices are measures of values and hence ethics: adhering to them is ethical, ignoring them is not. (See also Pitcairn.)

Although Radez does not assert that a code of conduct would successfully address every ethical problem that the communicator might face, he does say that this professionally determined code is the only ethic a profession can attempt to mandate to its members. Since it is established by the professional community, it should reflect the values and needs of that community, which determines how to appropriate those values in the profession. (Kris Hartung explains that this professionally constructed mindset is the result of “groupthink” (369)—the tendency to succumb to job pressures and to assume the viewpoints and even ethical standards of those around us. This groupthink is inherently nonfoundational because it is socially constructed and changes from situation to situation and from group to group. See also Walzer, “Professional Ethics” and Weiss (172-74) for a discussion as to how professions such as law and business socially determine their own, profession-specific values and standards of ethics.) For example, in Radez’s ethic for technical communication, the ethical values of the community manifest themselves in quality control criteria and careful mechanics. Because the community determines its needs and values, it can *alter* its needs and values as the profession demands. Therefore, professional ethics and codes of conduct are contextual and nonfoundational.

David Russell likewise defends a professional ethic. He advises instructors in technical communication to disseminate this ethic because both professions and students expect them to do so (96, 100). Ultimately, he implies that instructors of technical communication owe their students and the profession an ethic that helps communicators to “learn the discourse of a community and thus become a part of that community...[and not to] challenge or resist the ethos and perhaps the ethics students are learning as part of their initiation into a professional community, as some in our discipline argue” (102). Russell’s proffered ethic is likewise determined by the profession: students should learn to accept the values of their profession and to follow the principles associated with those values.

Admittedly, Russell does not state that this professional ethic will solve every ethical dilemma for every technical communicator. Neither does he assert that this professional ethic should serve as a moral basis for the communicator’s *non-professional* life. Still, he does affirm that the most effective ethics instructors can teach their students is one that fosters “a mutually respectful dialogue with professionals in the disciplines our students are preparing to enter” (107). Thus, this ethic is a determination among professionals as to what their professional values are and how they can best serve those values. As these examples illustrate, technical communication can employ professional nonfoundational ethics by allowing members of the professional community to determine their current needs and values, and adopting corresponding guidelines for ethics.

As Carol Lipson avows, some degree of professional conformity is necessary in any field. She explains, “To enforce standards, a profession would want its practitioners to identify closely with the professional group, and its norms and procedures.... Since [technical communicators] are going to have to use language repeatedly in their practices, controls of language become natural vehicles for reinforcing values and for judging performance” (9). For example, Lipson shows how scientific writers must adhere to strict formats that privilege the results section, attempt to be objective, and use strings of nouns as modifiers. The field of scientific writing mandates such conventions to its writers to reinforce professional standards and conformity; these standards unify the field, prescribing actions, attitudes, and values to those within it.

Using professional standards to specify values and ethics also manifests itself in what Steven Katz calls the “ethic of expediency.” This ethic requires the “objectivity, logic, and narrow focus” that characterize much technical writing and that most professional communication guidelines demand (257). Katz uses the ethic of expediency to examine a memo written about Nazi gassing buses. To his dismay, he finds that “Underlying the objectivity, detachment, and narrow focus of this memo... is an assurance that the writer’s ‘action’ is *technically* justified and correct, and thus morally right, an assurance that is grounded not in the arrogance of a personal belief in one’s superiority, but rather in a cultural and ethical norm of technology” (265, emphasis in original). Technical communicators are especially susceptible to this ethic of expediency because, as Carolyn Miller explains, technical communication sometimes demands an

efficiency that does not ask questions but simply seeks the right kinds of answers (Miller, “Technology” 233). (See also Hynds and Martin.) The ethic of expediency provides this efficiency because it commands strict adherence to communication guidelines.

However, neither professional standards nor expediency fulfill one of the primary requirements of nonfoundational ethics: employing “necessary democratic procedures [such as] unrestricted debate and discussion; varied forms of public address, parliamentary procedure, and legal procedure; freedom of inquiry, criticism, and choice; and publicly defined rules of evidence and tests of reasoning” (Johannesen, *Ethics* 25). These ethical approaches do not allow the communicator (especially the neophyte) or other members of society (namely, those outside of the profession) to fully assert their personal moral codes. Of this phenomenon, though, David Russell states that there is “nothing sinister” about training students to promote the interests of the industries and individuals for whom they will one day work (90). Other scholars disagree.

Thomas Miller warns that a “practical awareness” forces instructors to sacrifice theory for practice without questioning the assumptions behind those practices. This failure to understand motivation and the desire to concern themselves primarily with industry-accepted practices allow technical communicators to make uninformed decisions when they employ one of those practices. (See also Zerbe et al.) The tenets of nonfoundational ethics demand completely exposing all possible information, an

exposure that is limited if the communicator looks only to industry standards for ethical guidance.

Using professional standards as ethical guidelines is also problematic because those standards do not allow people outside the profession to express completely their opinions and values. Nonfoundational ethics demands that *each* individual (regardless of profession) be treated equitably and her values considered. For example, Patricia Hynds and Wanda Martin explore how a public works department employed the professional ethic of expediency to communicate its desire to site a well in a predominantly Native American and Hispanic community in the Southwest. The public works department adhered strictly to its professional guidelines, doing what the industry considered ethical. It used scientific methods to determine the best site and, using standard procedures, proposed placing the well in that site. It followed the guidelines set by the profession, guidelines based in the profession's needs and values. From the standpoint of professional ethics, the department acted ethically.

However, members of the community felt alienated from the public works department and resented its standardized, bureaucratic rhetoric. They did not understand the department's methods, and they felt alienated from the process of siting the well in their community. As a result, the community gained a legal injunction against the well, and the relationship between the community and the department was permanently damaged. In this case, the professional ethic was not truly nonfoundational because it did

not fully consider the opinions of everyone who might be involved in the decision.

Because it ignored some people's values, it was not successful.

The public works department adhered to its professional ethic but apparently did not fully understand the limitations of that ethic. The department did not acknowledge the fact that a professional community's values and standards may affect the values and standards of people outside of the community. Instead, the department allowed the professional ethic to serve as the *primary* ethic; the standards set by members of the profession became standards of ethics, of value, right and wrong. Since the department seemingly did not realize that professional standards may be inadequate, they communicated in ways that were not ethical (from a nonfoundational viewpoint). They privileged their own needs, values, and ethics as inherently more ethical—or at least more important—than the needs, values, and ethics of the community.

The use of professional ethics is hardly restricted to communications departments within small government agencies, though. In fact, the Society for Technical Communication (STC), the largest professional organization for technical communicators, endorses its own nonfoundational code of ethics. This code reads, “As technical communicators, we observe the following ethical guidelines in our professional activities[:] Legality, Honesty, Confidentiality, Quality, Fairness, [and] Professionalism” (“Ethical”). The code then elaborates on how technical communicators can achieve each of these industry-approved ethical characteristics. Many scholars, such as William Buchholz, enthusiastically endorse such codes; Buchholz calls for more user-friendly

codes that communicators can utilize more frequently and completely. Frank Radez also defends such a professional ethic above all other ethical approaches for technical communicators.

However, codes of conduct are not as effective as these scholars advance them to be. As Mike Markel explains, codes of conduct, including STC's, are simply too vague to be of practical use to the average technical communicator ("A Basic" 216-17). For example, STC's code calls for "professionalism" monitored by evaluations from others. However, it is doubtful that the typical technical communicator would be able to determine from this guideline how to act professionally (and hence ethically) in a meeting with new clients. What's more, Sam Dragga finds that technical communicators simply do not use codes of conduct as ethical principles on the job. While asking forty-eight technical communicators to justify sample ethical decisions, Dragga found that *none* of them referred to a professional code of ethics or conduct ("A Question" 166). Another communicator, an ex-engineering writer, states that in his ten years on the job, he *never* saw a code of conduct and *never* heard his colleagues cite the code as a source of ethical instruction (Bryan 81). Therefore, although codes of conduct may be excellent methods of promoting professional competence and ethical study, evidence suggests that they are not *practically* useful.

Unfortunately, though, many of the supporters of these codes, such as Radez, Russell, and Pitcairn, do not discuss such limitations of nonfoundational ethics. They do not offer technical communicators viable ethical alternatives for times when professional

ethics cannot be practically implemented. Nor do they explain how to encourage communicators to become familiar with and utilize professional codes of ethics, except to learn them in the classroom, an approach that will not be helpful to communicators already on the workforce. Therefore, research in professional ethics needs to more completely address the imperfections of nonfoundational ethics and offer alternative (such as foundational) ethics to supplement it.

Problems with Nonfoundational Ethical Theories

When nonfoundational ethics does not fully disclose its shortcomings or offer other alternative ethical approaches (i.e., foundational ethics), it implies that those shortcomings are insignificant and that other ethical approaches are less important than nonfoundational ones. These implications make nonfoundational ethics seem thoroughly applicable in all situations, which it may not be. Admittedly, few scholars explicitly declare that nonfoundational ethics will serve technical communicators flawlessly in *every* situation. *None* proclaim nonfoundational ethics as faultless or allege that nonfoundational ethics should serve the technical communicator as exhaustively in her personal ethical dilemmas as in her professional ones. However, some proponents of nonfoundational ethics do not fully discuss the limitations of nonfoundational ethics and hence do not offer alternative ethical approaches. Therefore, they may unwittingly imply that technical communicators can use nonfoundational ethics exclusively and effectively in their professional ethical pursuits. Any such inferences can be dangerous, as I

illustrate, because they can ignore two very alarming problems in nonfoundational ethics: quashing individualism for the sake of consensus and conformity, and simply being impractical.

Loss of individualism. One of the primary aims of nonfoundational ethics is to allow each individual voice to help construct values and ethics. However, to arrive at a socially constructed ethics, the community must agree somewhat upon its needs and values. As it negotiates these values, some opinions will be irreconcilable with the socially determined values. Then, the community will necessarily try to persuade the dissenters to accept the majority's opinion. In doing so, if the community seeks unanimity and uniformity above all else, it loses sight of the individual. Of this problem, Gregory Clark asserts,

[nonfoundational ethics] treats agreement as the primary collective good when it designates the elimination of disagreement as the end toward which the discourse community ought to be directed. The problem is that this ethics contradicts a democratic politics, a contradiction that is manifest when, in its drive toward agreement, a discourse overlooks, minimizes, or excludes difference. It does so by denying the presence of unresolved or unresolvable conflict, and denying in the process equal participation in the discourse to those who disagree. "Rescuing" 61

Clark's objection is especially true in dialogic ethics, which sometimes demands a social ethos of the communicator. The communicator must mediate values with her audience

and then use a persona that reflects and reinforces those needs. However, there may be some people who simply *cannot* reconcile themselves with the majority social opinion and the communicator's ethos.

For example, a technical communicator may have to decide how to portray typographically a warning about a new pesticide. So, to resolve this dilemma, she adopts a social ethos, imagining the needs and values of everyone she can perceive involved in the situation. She determines that her discourse community (primarily, the users of the pesticide) needs to be able to handle the pesticides safely and that they value a straightforward approach to corresponding safety instructions. Based on these socially constructed values, the communicator decides to place the warning prominently in large, red, Arial font. From a nonfoundational standpoint, she has made a good ethical decision. However, her very process of dialogic ethics has ignored one particular voice: the environmentalist who believes that a warning does not suffice for such a dangerous chemical and that the product should not be marketed. This voice represents what Clark calls the "unresolvable conflict," a viewpoint not given "equal participation in the discourse." Because the communicator focused on consensus and agreement, she may have been *less* able to acknowledge dissension, ignoring and perhaps devaluing the personal beliefs of individuals who disagree with certain socially constructed values.

Likewise, professional ethics does not completely value the individual; instead, it privileges conformity to the group. Richard Johannesen argues that the attitudes of the communicator and audience toward one another are more important and ethical than the

message or the medium (“Emerging” 380). He contends that open human interaction is the most important ethical guideline. STC also seems to advance the ideal of personal interchange. Its code calls primarily for positive interaction between writers, clients, and employers. For example, the code demands “candid evaluations” of the communicator’s performance from others and respect for confidentiality. Such rules help produce honest interpersonal communication. Candid feedback allows one person to openly discuss others’ actions; it enables the communicator and her evaluators to decide upon acceptable practices. Confidentiality enables one party to trust another with sensitive information, allowing both to speak freely.

However, if a profession prescribes human interaction as the primary ethical guideline, it takes from the individual her right to create and maintain her own value system. It mandates to the technical communicator that the highest ethical goal be candor and freedom of expression. Even though few communicators would argue against freedom and honesty in communication, most would not want an organization or industry to decree ethical priorities to them. (See Radez.) Actually, most communicators prefer to adhere to their own ethical prerogatives (Dragga, “Is”).

For instance, an employer might ask a technical communicator to document the production of a specialized weapon. According to nonfoundational professional ethics, the communicator is ethical if she adheres to the profession’s edicts to document the weapon honestly, professionally, and confidentially, complying with legal and professional standards. In other words, if she fairly acknowledges the expectations of the

professional community and fulfills the community's demands, she is acting ethically. However, if the communicator is a pacifist, she may not believe that she can help produce or distribute such a weapon. Strictly adhering to professional ethics might not allow her to act according to her personal convictions. In fact, if taken to the extreme, it may not even admit that such personal conflicts of interests are legitimate in the workplace. If professional ethics privileges professional guidelines over personal ones, it seriously limits the role of the communicator's ethics in the workplace. If the communicator is not free to express her own needs and values, her individuality suffers. Ironically, it is this very individuality that nonfoundational ethics seeks to foster.

Thus, a perfect consensus is nearly impossible. When research in nonfoundational ethics admits this problem, though, it usually does not offer the communicator sufficient advice on how to address the situation. It does not fully explain how consensus can actually hamper individuality. Assent at the expense of individualism can allow the community to devalue individuals, especially those holding minority opinions. It also can dictate personal ethics and prevent communicators from confronting differences that allow them to refine their own personal beliefs. As David Dobrin reminds us, consensus "doesn't necessarily fit in the class of *moral* purposes" (155). Nonfoundational ethics in technical communication needs to acknowledge and explore how negotiation and consensus-building can stifle individualism; it should fully address the presence and importance of dissenting individual moral codes.

Impracticality. Any ethical approach must be practically applicable. However, nonfoundational ethical theories are largely unrealistic; most technical communicators could not effectively employ them in the workplace. For example, Johannesen exhorts that in dialogic ethics, “The exercise of power or superiority is avoided” (*Ethics* 46). That is, no one party should attempt to persuade others to accept its position uncritically. Every member of the discourse community should encourage a dialogue about the community’s needs and values in any given situation. When doing so, each should fully respect the divergent opinions of the others. However, this ideal social mediation is sometimes simply impossible for technical communicators.

For example, while drafting a report recommending changes to an aircraft, a communicator may survey the affected parties, determine their needs and values, and then adopt an ethos (and related ethics) that reflects those social exigencies. However, if one of the affected parties is the US government, the communicator will be under intense pressure to prefer the needs of the government over the needs of the other parties. Because the government likely brandishes more power than the other groups or individuals involved, the communicator may succumb to its demands above all others. In doing so, she allows power and pressure to color her ethical decision, a concession that violates the nonfoundational requirement for open, uncoerced expression. Moreover, if the communicator privileges powerful entities over less-powerful ones, she unwittingly declares power itself an ethic: “good” is whatever the most powerful force says it is. Because such an ethic could ignore the values of others—even the majority—to appease

authority, it could actually harm more people than it helps. (See also Carolyn Miller, “Rhetoric” 91.) The ideology that dialogic ethics necessitates can be simply impossible given the inevitable hierarchy in which technical communicators function. (See also Jensen 32-33.)

This inequality of power and the subsequent failure of nonfoundational ethics is even more pronounced in professional ethics or codes of conduct. As Shimberg and others prove, individuals do not carry equal power, and when conflicts arise, the party with the most power almost inevitably prevails. As he explains, the technical communicator is usually *not* one of these most powerful figures. Patrick Moore agrees: “Because of pressures in the marketplace, if technical professionals disagree bluntly with the...most powerful members of their social group, they will be fired or sanctioned” (“When” 273). (See also Barabas.) Technical communicators generally answer to supervisors, and in any workplace, employees must act deferentially toward their superiors. Such deference does not promote a true discourse (Herndl et al 286). If the communicator’s professional ethic (as established by STC) conflicts with her supervisor’s professional ethic (as established by business guidelines or a particular corporation), the communicator’s ethic will probably not prevail.

For instance, a communicator editing a sales brochure may not believe that the brochure accurately reflects the product’s capabilities. The brochure states that the product functions under all weather conditions, but the communicator knows that it quickly breaks down when exposed to excessive moisture. After reviewing STC’s ethical

code, she decides that the brochure's statement violates her professional obligation to communicate honestly, so she changes it. Her supervisor, however, insists that the communicator restore the original statement for marketing reasons. The professional ethics of technical communication demands that the communicator not back down. However, her supervisor—who may or may not be a technical communicator herself—believes that the communicator's utmost responsibility and primary discourse community is the company itself, not STC. How does the communicator resolve the dilemma?

First, she can defy her superior and risk losing her position. Second, she can redefine her discourse community and, thus, her ethical obligations. If she accepts this second option, though, she forsakes the technical communicator's code of ethics in favor of another professional code. Because technical communicators are rarely the most powerful parties in their workplaces, they may not be able to exert the power necessary to convince those around and above them that the professional ethic to which they should adhere is a *technical communication* ethic or code.

Moreover, some technical communicators may believe that their first priority is to a group other than STC, such as their employer. In this case, the communicator may prefer the corporation's code of conduct over STC's. There is no guarantee that the communicator can or would promote a technical communication code of ethics. That is not to say that STC should not develop such a code. A code of conduct spurs discussion of ethics, and being aware of and involved in matters of ethics can be ethical itself. (See beginning of this chapter.) Still, though, professional ethics is not always very viable.

(For other problems with nonfoundational ethics, see also Kent and Weiss.) When it is impractical, technical communicators need alternative ethical approaches (such as foundational ethics) to complement nonfoundational ethics.

The Need for Foundational Considerations in Nonfoundational Ethics

As these examples explain, nonfoundational ethics is problematic. Neither dialogic nor professional ethics is entirely nonfoundational, and both approaches forsake individualism and practicality for idealism and moral relativism. (See, for example, Allen and Voss, who briefly outline the dangers of nonfoundational ethics and moral relativism (“Ethics for Editors” 58) before quickly returning to the benefits of nonfoundational ethics.) Since nonfoundational philosophies cannot operate by themselves, as sole methods of ethical deliberation, technical communicators need to consider other approaches as well, approaches that research in nonfoundational ethics sometimes ignores. Scott Sanders acknowledges the need for supplementary ethics: “it is hard to feel confident that [some very] foundational evils are effectively countered without appealing to foundational ethical tenets” (“Technical” 113). Therefore, communicators need to combine the beneficial aspects of nonfoundational ethics with the beneficial aspects of other ethics (especially foundational ethics). Doing so will provide a fuller, more complete ethics of technical communication.

Chapter Five: Contextual Foundational Ethics

Neither foundational nor nonfoundational ethics is perfect for every ethical problem in technical communication. Both approaches have serious limitations. However, a combination foundational and nonfoundational ethic perhaps could give technical communicators a more complete ethical framework, one that might help alleviate some of the problems inherent in the individual approaches. I call this ethic contextual foundational because it acknowledges and works with foundational ethical values but does so through a (nonfoundational) contextual process of negotiation. This ethic is what Mike Markel advances in “Ethics and Technical Communication: A Case for Foundational Approaches,” although he does not use the term “contextual foundational.” Markel states, “My approach is to consider issues that derive from foundational ethical approaches, but to carry out the decision-making process within a communicative [nonfoundational, contextual] ethics framework” (293). In short, Markel proposes an ethic that fully acknowledges and embraces both foundational and nonfoundational ethics. (For other, though less well-defined examples of ethics that treat foundational and nonfoundational ethics relatively equally, see also Chesebro 110-14; Clark 68-73; Halloran; Hartung; Martin and Sanders; Thomas Miller; Ornatowski; Thomas and Olsen.)

Markel's (Contextual Foundational) Ethic

Markel recommends communicative (dialogic) ethics as the contextual basis for his (contextual foundational) ethic. Admittedly, one cannot ignore the nonfoundational professional ethic, which undoubtedly can affect the communicator's ethical decisions. The successful communicator cannot ignore professional concerns and demands. Such standards help the communicator to understand her role and to become a more productive member of the profession. Still, professional ethics is only *one* aspect of nonfoundational ethics.

Dialogic ethics more fully reflects the spirit of nonfoundational ethics because it is more inclusive. Nonfoundational ethics requires that *all opinions related to a given situation* (the opinions of everyone in the discourse community) be stated, equitably explored, and negotiated. These negotiations yield a set of needs, which determines values, which determines ethics. A simple-minded focus on professional ethics, though, reduces the discourse community to *just* technical communicators. It focuses on the needs, values, and ethics of the profession, which can allow the profession to ignore the opinions of outsiders. Although the values and opinions of the field of technical communication do play into nonfoundational ethics, they are not the *only* values and opinions that the communicator must consider. Dialogic ethics allows the communicator to more fully negotiate with society about needs and values because it allows her to recognize more and more divergent points of view. Since dialogic ethics appears to be a

more thorough nonfoundational approach, I focus on dialogic ethics as the contextual basis for contextual foundational ethics.

Dialogic ethics is the first step in the contextual foundational ethical framework. To implement dialogic ethics, the communicator polls others in her discourse community to determine their needs and values. Then she negotiates with them, weighing the different beliefs against one another and against her own opinions. She uses this social feedback to help decide what ethical issues are involved in the situation, which are most pressing, and how they may be addressed. “Obviously,” Markel states in reference to this process, “you should consult with as broad a range of others as possible when confronting an ethics problem. This consultation might take a number of forms, from one-to-one dialogues to focus groups to formal meetings” (293). Whatever its form, this step in contextual foundational ethics is dialogic. It requires the communicator respectfully to mediate with others to uncover society’s current needs and values. Doing so enables the communicator to consider social values in her ethical decision-making process.

Markel concedes that this open, uncoerced communication will be impossible in most cases; still, he urges communicators to engage with others as completely as possible to determine and implement ethical solutions. Doing so trains the communicator to employ ethics as fully as she can, and it keeps her from trying to solve a difficult problem “in isolation”:

Just as collaboration in writing is likely to improve a document's quality because the authors will have more information and insights to work with, collaboration in thinking through an ethics problem will help you see shortcomings in your reasoning, as well as help you understand perspectives you might not have considered otherwise. 293

Granted, Markel does not advocate an *entirely* nonfoundational ethic. He does not deny, as do strictly nonfoundational ethics, that there are certain universal and unchanging ethical values. He also does not insist that society's needs and values are *always* the best bases for ethics in any situation. Instead, he offers a form of dialogic ethics that civilly considers each person and opinion. This dialogic ethic is open because it requests criticism and assistance from others. In this way, it is nonfoundational. It helps to "create an atmosphere in which people treat one another—and, by extension, their views—respectfully" (293), and that respect is the basis for the dialogic aspect of contextual foundational ethics.

This dialogic ethics is only the first step in contextual foundational ethics, though. Next, Markel stipulates that the communicator employ foundational values. He suggests either Kantian ethics or utilitarianism as the foundational bases for his ethical framework. However, I amend Markel's ethic on this position by focusing primarily on Kantian ethics instead of utilitarianism. I do so because Kantian ethics is slightly less problematic than utilitarian ethics since Kantian ethics is less product-oriented and demands both ethical means and ends. (See Chapter Three.) Moreover, Kantian ethics *can* embody

other foundational approaches such as honesty, e.g., if a communicator values honesty, she might wish that a standard of truthfulness be universalized according to the categorical imperative. Hence, Kantian ethics would not exclude some humanitarian values, such as honesty. Naturally, it is important to fully explore *each* foundational ethic and to examine its role and applicability in any given ethical dilemma. However, of the three foundational ethics I have surveyed, Kantian ethics least excludes other approaches, so I focus on it as the foundational portion of contextual foundational ethics.

Using this amendment to Markel's ethic, then, once the communicator has negotiated with others, gaining their insights into the ethical dilemma, she should employ foundational Kantian ethics. The communicator uses the input of others to determine the ethical issues included in her current situation: What might be the ramifications of her actions? Whom might her actions affect? With these socially determined questions in mind, the communicator can utilize Kantian ethics to help determine the most ethical action. She has a better understanding of what questions to ask of Kantian ethics: Which of the ramifications of my actions should I want universalized? Which actions would most fully treat others as ends in themselves and not means to ends? Thus, the communicator uses foundational Kantian ethics to weight and implement the values that she and her discourse community have identified.

To illustrate how the communicator employs such foundational values, Markel uses the example of a communicator whose supervisor has asked her to write a false statement about a product (294). Using the categorical imperative, the communicator

might ask herself, “Can I wish that everyone in my situation engage in this action that does not fully value honesty?” Since she probably could not wish that everyone in her situation write dishonestly, she cannot universalize her actions. The action is not fully ethical from a Kantian perspective. Second, she might ask herself if the dishonest statement would treat readers as means to an end rather than as ends in themselves. Since the false statement probably treats people as means to an end—profit—it is again unethical from a Kantian perspective (294). Thus, the communicator uses Kantian precepts to determine her ethical obligations

However, Markel also admits that the communicator may not be *able* to act according to Kantian ethics in this situation because “it is unlikely that the communicator could persuade the manager to change his or her mind” (294). The manager wields more power than the communicator, so the communicator’s commitment to Kantian ethics likely will be subjugated by the manager’s values. When the communicator is in such ethical gridlock, Markel suggests reexamining contextual foundational ethics by asking questions such as

[D]oes the employer have a right to compel the communicator to follow orders or be fired? In terms of ethics, no, although legally the answer is less clear. Does the communicator have a right to do what he or she feels is appropriate, even if the employer forbids it? Probably not. Does the communicator have the right to go to the organization’s ombudsperson or seek

arbitration in some other way? Yes. Does the communicator have the right to blow the whistle if the situation is serious...? Yes. 294-95

These questions can determine her (nonfoundational) social responsibilities and her (foundational) personal ones. They allow her to reexamine her ethical decisions continually, which is what Markel claims is the hallmark of a good ethical framework.

No system of ethics will always yield completely ethical results, and Markel does not imply that contextual foundational ethics is any exception. Still, he advances it as a more complete ethical framework. Its nonfoundational characteristics help the communicator to ascertain what ethical questions are relevant in a given situation, what her options are, and what the ramifications of those options might be. The foundational characteristics help her to determine which options are most ethical and if she can implement them. Most importantly, though, these two approaches complement rather than undermine one another. As I show later in this chapter, dialogic ethics makes Kantian ethics more socially responsible; Kantian ethics makes dialogic ethics more viable. And each makes the other more complete.

Examining Contextual Foundational Ethics

As Mike Markel explains, contextual foundational ethics offers many benefits. More specifically to our purposes, though, contextual foundational ethics alleviates many of the problems that I have discussed so far, problems that emerge when communicators fail fully to consider either foundational or nonfoundational approaches. I do not suggest

that contextual foundational ethics is for technical communicators, nor do I propose that it solves all of the problems of either individual approach. However, I do demonstrate that contextual foundational ethics could help lessen some of the problems that arise when technical communicators rely too heavily on one approach and neglect to treat the other fully.

To help illustrate how contextual foundational ethics can help alleviate certain problems, I use a dramatic example from technical communication: the disaster of the space shuttle *Challenger*. (On January 28, 1986, seventy-three seconds into its flight, the space shuttle *Challenger* exploded due to a booster problem. The incident was one of the most disastrous events for both America and NASA, especially since the flight crew was one of the most racially diverse ever and because it was to be the first time a civilian had been on a mission (“Challenger”; “Challenger Disaster”).) As I show, communications surrounding the *Challenger* disaster offer excellent practical examples of how technical communicators could have used contextual foundational ethics to arrive at more complete ethical approaches to their problems. To this end, I explore how some of the ethical decisions that communicators made reflect either foundational or nonfoundational ethical values.

I do not attempt to show that the communicators involved in the *Challenger* incident actually employed a particular ethic or ignored another. I also do not endeavor to analyze completely the communications problems that contributed to the disaster; such a task is well beyond the scope of my project. All I aim to do is illustrate briefly—with a

very few, select examples—how communications about the *Challenger* prior to its explosion *could* be viewed as the results of ethics that relied too heavily on exclusively foundational or nonfoundational precepts. In doing so, I take the problems of foundational and nonfoundational ethics to the extreme, giving worst-case scenarios for both ethical approaches. However, I believe that the extreme results of the communication failures surrounding the *Challenger* permit extreme analyses, especially if an understanding of the worst possible results can help communicators avoid such problems in the future.

Based on the characteristics of the communicators' actions and words, and on the documented facts surrounding the *Challenger*, I hypothesize as to how the communicators themselves *might* have been influenced primarily by either foundational or nonfoundational ethics. Naturally, no one except the individual communicators can testify as to their ethical motivations for their decisions. I simply give examples from the *Challenger* to show how problems characteristic of primarily foundational or nonfoundational ethics can be taken to the extreme and can result in serious communication problems. Then, I quickly explore how contextual foundational ethics *might* have given the communicators a fuller ethical approach. I in no way posit that contextual foundational ethics could have prevented the *Challenger* disaster, but I do attempt to prove how it could have offered a more complete ethics that *might* have allowed communicators to acknowledge ethical dilemmas and possible solutions more completely.

Explanation of the Space Shuttle *Challenger* Accident. Physically, the space shuttle *Challenger* disaster resulted from charred O-rings. Dorothy A. Winsor describes the material basis for the accident this way:

The physical cause of the Challenger explosion was the failure of a rubber seal in the solid rocket booster.... These solid rocket boosters (SRBs) were made in segments which were stacked together at the launch site. The joints between the segments were sealed with two O-rings, which were protected from the heat of combustion by putty. The joint was pressure sealed, meaning that during rocket firing, expanding gases from burning fuel pushed the putty into the air space in the joint; this compressed air, in turn, pushed the O-ring into place and held it there.... During the Challenger launch, the O-rings in one of the SRB joints failed to seal, allowing hot gases to escape from the side of the SRB and burn a hole into the nearby liquid fuel tank, which exploded approximately 73 seconds into the flight. 102

However, more thorough investigations into the disaster show that the communication process involved in evaluating and conveying information about the O-rings was as much at fault for the disaster as were the O-rings themselves (Dombrowski; Herndl et al; Moore; Riley; Walzer and Gross; Winsor).

Alleviating Nonfoundational Ethics' Lack of Emphasis on the Individual

First, nonfoundational ethics can limit the role of the individual in making ethical decisions. It can fail to admit fully the communicator's individuality—her important role in resolving ethical dilemmas and the role of her personal ethics in determining and implementing ethical options. However, contextual foundational ethics may mitigate this problem. Because contextual foundational ethics has foundational characteristics, it admits that the communicator is importantly involved in making ethical decisions and that her involvement might be colored by her own (perhaps foundational) ethics.

First, the individual has a very important role in the decision-making process; it is the communicator herself who must implement Kantian ethics (or any other foundational ethic). In his limited version of contextual foundational ethics, James Porter claims that “such an ethic would not deny the validity of individual ethical responsibility—but it would insist that ethical responsibility...must be shared” (“The Role” 132). In this ethic, then, the individual is accountable for initiating and executing ethical decision-making processes.

Moreover, nonfoundational ethics sometimes fails to acknowledge that the communicator's *personal* ethics are integral to her ethical decisions. In contextual foundational ethics, though, the inclusion of foundational principles demands that we recognize how the communicator's individual ethics plays into her decision-making processes. As Kris Hartung states, a complete ethic must recognize “that personal values and feelings are worth considering when thinking about morality” (383). (See also

Faber.) To this end, Mike Markel cites Stephen Toulmin, who states that “the best we can achieve in practice is *for good-hearted, clear-headed people* to triangulate their way across the complex terrain of *moral life* and problems” (296, emphasis added). As Toulmin shows, the role of the individual’s ethic is important in how she handles professional ethical problems. Toulmin advocates good-heartedness and clear-headedness, attributes that reflect an earnest desire to be and do “good.” They are *personal* ethical qualities. Of course, the communicator must carefully check her personal morality to ensure that her decisions are not self-serving, a task that is encouraged through dialogic collaboration with others in her discourse community. Still, contextual foundational ethics does not deny that the individual’s ethics plays into her ethical decisions.

Furthermore, nonfoundational ethics does not always fully admit that the individual’s values might be foundational and that foundational ethics are therefore important in any system of ethics. In calling for a redefinition of (that is, a more contextual foundational) ethics, Thomas Miller promotes an awareness of morality that “can empower individuals by helping them discover how to use *traditional* values and assumptions that are put into practice within organizations and disciplines” (69, emphasis added). As Miller illustrates, the ethics that individuals use are often “traditional” or well-established ones. Thus, the personal morality that participates in the communicator’s ethic is often a traditional or foundational one, often guided by deeply ingrained religious or humanitarian—that is, foundational—values.

The communicator therefore must be aware of her own ethical values and “develop ways to monitor and critique” them (Faber 200). Because the individual’s morality plays into her ethical decision-making processes, contextual foundational ethics cannot ignore individual values and beliefs. Instead, it acknowledges individual ethics, and by acknowledging it, allows the communicator to check it. The communicator herself should be educated and trained to act ethically (Markel 295; Faber 201). In particular, she should learn to critique her own ethical values. Thus, contextual foundational ethics places a great deal of responsibility on the individual and her personal moral code.

How the *Challenger* incident could reflect nonfoundational ethics that does not fully admit individuality. In the accident involving the space shuttle *Challenger*, some of the ethical decision-making seems to reflect the values of nonfoundational ethics, but that ethic does not seem to fully and consistently admit the important role of the individual and her personal values in the decision-making process. For example, both MTI and NASA had extensive guidelines for testing flightworthiness. They were fastidious in implementing a set of procedures for determining the safety of shuttle flights (Dombrowski, “Can Ethics” 147). MTI repeatedly tested the SRBs and O-rings, and NASA ran numerous test flights with the charred O-rings. Both required careful documentation of these tests. These procedures and standards can be viewed as measures of professional ethics. They were accepted practices based upon the organizations’ values, and they set forth “right” or ethical behaviors. From a professional ethical

viewpoint, the individual communicator simply had to implement these values; her personal convictions supposedly did not come into play.

However, as Paul Dombrowski explains, personal principles were extremely important in the communication surrounding the *Challenger* accident, a fact that professional ethics and the “technologizing” of ethics often denies. “Repeatedly [in the *Challenger* incident],” he states, “key decisions show that personal decision-making was much more important than impersonal procedural decision-making” (“Can Ethics” 148). Although comprehensive nonfoundational professional standards were in place, *personal* values often guided ethical decisions. Unfortunately, though, some of the communicators in connection with the *Challenger* disaster seem to have assumed that professionalism—not personal values—was guiding ethical decisions. As a result, they did not fully consider the role of the individual communicator in the ethical decision-making process nor did they see any need to help refine the communicator’s personal ethical beliefs.

Dombrowski discusses the danger of viewing ethics as adherence to industry-set guidelines (what he calls the “technologizing” of ethics) and how it can ignore the important role of the communicator and her personal morality. He uses the example of Lawrence Mulloy, a NASA manager. Mulloy claimed that he notified numerous people at NASA of the dangerous O-rings. However, he did not mention the O-ring problems in any of his flight-readiness statements, which NASA uses to document launch problems and to which NASA refers when making official decisions about flightworthiness (“Can Ethics” 148). Dombrowski concludes that Mulloy’s personal decision not to document

his reservations “shows that procedures operate only derivatively on the basis of written inputs, [which] might not reflect the whole decision-making process” (293). The portion of the decision-making process that was seemingly omitted was the individual’s *personal* values. In spite of professional standards, Mulloy apparently used his personal judgment to decide not to put into print any qualms about the *Challenger*’s readiness for flight. Personal values seemed to have played an integral part in Mulloy’s decision making, but Mulloy may not have been able to recognize his personal values or may have sacrificed personal concerns for what he believed to be professional good (launching on schedule). Whatever the case, Mulloy needed to fully understand the ramifications of his personal values and decisions—even in professional ethics.

How contextual foundational ethics could have alleviated this problem.

Contextual foundational ethics might have helped to assuage this problem by allowing Mulloy to acknowledge more fully the role of his personal values upon his professional ethical decisions. In contextual foundational ethics, the individual must be aware of her own personal values so that she does not consider them above others’ values and must constantly analyze her personal ethics.

First, the communicator must understand that she herself is responsible for ethical decision-making, for becoming personally involved in and accountable for her actions. This culpability does not deny that others in the discourse community contribute to ethical decisions. Rather, it forces the communicator to become aware that professional standards do not excuse her from personal ethical involvement or responsibility.

Professionalism merely helps guide her ethical deliberations. Next, the communicator must admit that her personal ethics will likely influence her decision-making, so she must be aware of her values and continually examine her decisions to see how they are based upon her personal beliefs. Although she need not *change* her personal moral code, she must try to understand and scrutinize her own values because otherwise they will affect her ethical decision-making without her knowledge of it.

In Dombrowski's example, perhaps Mulloy could have acted more ethically if he had employed contextual foundational ethics. Doing so might have helped him to determine if he was being influenced by personal values and, if so, how he might have critiqued them and revised them if necessary. For some reason, Mulloy chose to use verbal rather than written warnings. What personal values affected his decision to do so? Did Mulloy personally value expedient delivery of his warning? Perhaps that value played into his resolution to use verbal warnings, which might spread throughout NASA more quickly than written ones. Did Mulloy value workplace harmony? If so, perhaps he believed that spreading a verbal warning would be less disruptive to his workplace than documenting a warning that could upset his supervisors, especially given their need to see the *Challenger* off on time. Whatever the motivation, Mulloy's decision not to write down his reservations seems incongruous with the professional standards that were in place, standards which demanded that any such possible problems be documented. It is likely, then, that Mulloy's personal values guided his decision.

Perhaps if Mulloy had been more aware of his personal values, he could have questioned their legitimacy. He could have asked himself, for example, “Why am I making the decision not to document my reservations?” Asking this type of question might have allowed Mulloy to understand more fully his personal motivations and how they were affecting his ethical decision-making. If he found that he did not document the problems in order to preserve accord in his workplace, he might ask himself “Does my value of workplace harmony conflict with others’ values?” and “If so, does my value of workplace harmony more fully reflect Kantian ethics than others’ values?” These questions might have allowed him to determine if and to what extent his personal values should be allowed to influence his ethical decisions.

With this understanding, perhaps Mulloy might have found what the Congressional committee investigating the disaster did: “[A] process is only as effective as the responsible individuals make it” (qtd. in Dombrowski, “Can Ethics” 148, emphasis Dombrowski’s). That is, a set of professional procedures (no matter how comprehensive) is no substitute for personal decision-making; *individuals* must make ethical decisions and take ethical responsibility. They are inseparable from the ethical decision-making process, and their values are inseparable from them. Thus, as contextual foundational ethics asserts, it is each individual’s responsibility to become aware of and critique her personal code of ethics.

Alleviating Foundational Ethics' Over-reliance on the Individual

Whereas nonfoundational ethics do not allow the individual to fully explore her personal morality, foundational ethics can force her to employ personal ethics at the expense of others' values and ethics. For example, theories of foundational ethics often do not explain how the communicator determines universal values; instead, they assume that the communicator will make such decisions intuitively. Doing so makes the communicator *alone* responsible for ethical judgments. However, contextual foundational ethics mitigates this problem somewhat because it has dialogic characteristics that call for the communicator to more fully consider others in her decision-making process.

For example, according to Markel's description, contextual foundational ethics begins with the communicator collaborating with others to uncover her ethical options. In other words, the communicator begins by employing dialogic ethics, which helps her determine what the ethical questions are so she can seek ethical answers. This social interaction is a very fundamental obligation in contextual foundational ethics. As Gregory Clark explains, ethics "must take the form of a response that begins with an *open consideration of how [the] other's conception of the good*, as that other has articulated it, might infect my own" ("Rescuing" 69, emphasis added). Thus, the communicator begins contextual foundational ethics by exploring the values of those around her and of those who might be influenced by her decision. She surveys their needs and concerns, weighs them against her own, and then decides what ethical options are available to her. Only

then—once she has a full slate of options—can she choose the most ethical course of action.

What's more, using dialogic ethics in conjunction with foundational ethics does more than augment the role of others in ethical decision-making; it can actually clarify the *communicator's* role in the process. As Thomas Miller explains,

[we must understand] the basic problems that constitute a specific discourse community, and we should encourage students to explore how those central problematic issues are reflected in the theoretical assumptions, technical methods, and social practices of that community.... When students have a broader perspective on the problematic issues and situations that the community is organized around, they become aware of their own place in [it]...and can then ask themselves if that is how they want to do things and how they want to express themselves in the things they do. 70

Dialogic ethics is recursive. Whenever a communicator examines the ethics of others, she develops a backdrop against which to examine her own ethical beliefs. With this increasingly refined backdrop, she can begin to understand her own ethic more clearly and change it when necessary. Thus, the nonfoundational aspect of contextual foundational ethics strengthens the role of both the individual and society in the ethical decision-making process. Contextual foundational ethics more completely approaches what David Sturges encourages: a moral framework that requires decisions to be equally “acceptable under constraints imposed by internal predisposition to judge goodness or

badness [and]...under constraints imposed by external cultures...and [by] the formalized rules of behavior defined by society, the organization, or the cultural group” (44).

How the *Challenger* incident could reflect foundational ethics that puts too much weight on the individual’s ethics. MTI not only manufactured and tested the SRBs and O-rings used by NASA but also reported to NASA that appropriate sealing of the O-rings was questionable. From observations, though, the engineers neglected to consider the needs and values of others in their discourse community, such as how they could most effectively convey their concerns to NASA. In other words, they earnestly appeared to have worked in accordance with their own ethical obligations, but they did so without considering the needs and values of others within their discourse community, such as the managers at NASA.

During a meeting with NASA, “the engineers argued from extensive experience in handling the failed parts, while [NASA] management argued from experience with flight records and program needs” (Herndl et al 300-01). In explaining the dangers of the flight, a top engineering expert remarked, “I sincerely hope that this launch does not result in a catastrophe [sic]” (qtd. in Herndl et al). This same expert maintained, “[During the meeting,] I went up and discussed the photos once again and tried to make the point that it was my opinion from actual observations that temperature was a discriminator.... I also stopped when it was apparent that I couldn’t get anybody to listen” (qtd. in Herndl et al 302). However, this engineer was not unsuccessful because

he was an *unethical agent*. He appears to have been unsuccessful because he did not incorporate the needs and values of his discourse community into the processes of making and presenting his ethical decision.

As some scholars in technical communication explain, MTI engineers could not make NASA managers understand the import of their concerns because the managers needed a communication that focused on the *results* of the charred O-rings; what the engineers delivered were the *causes* (Dombrowski; Walzer and Gross; Herndl et al 296-303). By looking at the results, the managers found that accepting the engineers' recommendations would *result in* another flight delay. As Herndl, Fennell, and Miller explain, "[The MTI engineers] reasoned from *causes* at the level of physical detail—charring and erosion of O-rings. The managers reasoned from *results* at the level of contracts and programs—successful flights" (302, emphasis in original). Since the managers were already under intense pressure to see the *Challenger* off on schedule, this result was undesirable. The managers also looked at the results of proceeding flights with charred O-rings; they found that similar flights with similar O-rings had *resulted in* successful flights. Because one of the managers' primary values was timeliness, and because they determined this value from results rather than causes, they might not have completely appreciated the engineers' presentation of the causes of O-ring failure. The managers needed the engineers to state explicitly that the flight would result in a failure using the current O-rings.

How contextual foundational ethics could have alleviated this problem. In the example of the shuttle *Challenger*, contextual foundational ethics could have provided a more complete ethical approach. Using contextual foundational ethics, the engineers at MTI could have realized that, in spite of their best personal ethical intentions, the NASA managers might not understand and appreciate their ethical reasoning. What the engineers needed was a more complete dialogic approach to the situation: an ethic that more fully considered the needs, values, and ethics of those involved in the decision-making process.

Instead of simply *giving* recommendations to the to the managers, the engineers could have collaborated with them. By employing aspects of dialogic ethics, they might have found that the managers were under intense pressure not to delay the flight (Markel, “A Case” 291). Thus, the managers’ needs and values were inherently different from those of the engineers, who advocated deferring take-off. With this knowledge, the engineers might have understood that they needed to negotiate more persuasively with the managers’ value of timeliness. The engineers might have found that they could offer courses of action other than seriously delaying the flight. A more dialogic decision perhaps could have satisfied the engineers’ ethical obligation to recommend against using the charred O-rings for the January 1986 flight but might also have reflected an understanding of the managers’ need to stay on schedule. The engineers might have more fully considered the values of others and might have been able to convince others to

accept their ethical decisions, thus uncovering the discourse community's "better reasons for assent" (Walzer and Gross 426).

Moreover, the engineers needed to realize the values and opinions of their *larger* discourse community, including the astronauts themselves. The values of the MTI engineers and the NASA managers were likely different from those of the astronauts themselves, who had a deep investment in their personal safety and a safe flight. If the communicators could have more fully understood the values of these members of their discourse community—the astronauts—they would have had another important set of ethics to negotiate with before arriving at a course of action. Therefore, if the communicators had more fully admitted the role of a diverse discourse community—each with needs and values that must be critiqued—they might have chosen ethical decisions that more fully implemented the needs of others.

Alleviating Foundational Ethics' Dependence on Ends

Next, foundational ethics sometimes focuses too narrowly on the end result of ethical deliberation. Especially in utility- and truth-based foundational value systems, the communicator is supposed to achieve a utilitarian or truthful good—an end—using whatsoever means necessary. When foundational ethics is combined with nonfoundational ethics, though, this problem is allayed somewhat because nonfoundational ethics forces the communicator to engage in a process of determining and evaluating ethical options in conjunction with others in the discourse community.

Contextual foundational ethics would be most effective in assuaging this problem if it used Kantian ethics, which is not teleological—that is, mandating ends without means. Instead, Kantian ethics is deontological—it prescribes a foundational *process* of ethical inquiry, by its very nature forcing the communicator to consider the means as well as the ends of her ethical decisions. (See Sturges.) Since Kantian ethics is deontological, using it as the foundational basis for contextual foundational would necessarily ease the problem of focusing on ends over means.

More importantly, though, contextual foundational ethics could help communicators concentrate on processes as well as products because it is contextual and includes aspects of dialogic ethics. Dialogic ethics requires that the communicator negotiate with others in her discourse community to decide what ethical issues to consider, what her options are, and if and how she can implement those options. By forcing the communicator to engage in such dialogic ethics, contextual foundational ethics allows her to engage more fully in a *process* of ethical inquiry. It enables her to explore *how* she makes and implements ethical decisions not just on *what* those decisions ultimately must be. Attention to how we determine and execute ethical judgments is attention to the process of ethical decision-making. Arthur Walzer and Alan Gross explain that ethics that includes this nonfoundational dialogic approach promotes “a sincere effort to *discover* the best reasons for assent or dissent” (428, emphasis added). The dialogic portion of contextual foundational ethics allows the communicator to

collaborate with others in her discourse community and to discern and evaluate their needs and values, using them to critique and enhance her own ethical judgments.

This dialogic approach to the process of ethical decision-making works well in contextual foundational ethics. As Markel explains, the communicator consults with others to uncover the ethical needs and values that might come into play in a given situation. She uses them to evaluate her own, personal ethic and to determine the precedence of ethical concerns. Using the input of others in her discourse community and her own convictions, the communicator can then fulfill whatever foundational ethical demands are most pressing. This process of inquiry forces the communicator to engage in dialogically ethical means to achieve foundationally ethical ends. It is not enough for her end result to be ethical. The path that she uses to achieve it must also be ethical, considering the needs and values of others as fully as possible in order to discover which ethical issues are most critical and where there are problems in certain ideas and actions.

As Gregory Clark explains, cooperation is “the fundamental principle that guides this process [of dialogic ethics]” (“Ethics” 193). When the communicator invites others to participate in the ethical decision-making process, she encourages cooperation with them but does not demand consensus among them. Naturally, not every member of the discourse community will want or be able to cooperate in the communicator’s ethical deliberations or decisions. However, by encouraging others to express their opinions and values, the communicator opens the pathway to cooperation: “a process of collaboration through which people negotiate the knowledge and actions that will support their

individual as well as their collective interests” (“Ethics” 193). This cooperation is the process through which the communicator begins to deliberate ethical problems. Thus, in many ways, dialogic ethics can work in contextual foundational ethics to help the communicator focus on ethical processes as well as products.

How the *Challenger* incident could reflect foundational ethics that depends too heavily on ends. Some of the communications concerning the dangers of the charred O-rings seem to have striven for a truthful exposition of the facts. Although many of these communications admittedly were “not in any way untruthful” (Winsor 105), they did not accurately convey the dangers of the O-rings to the reader. Perhaps we can find a partial explanation for this problem in a foundational ethic that privileged the end result of a truthful communication over a truthful process of negotiation with others in the discourse community.

Dorothy Winsor examines two memos written by MTI engineers, one of which gave “just the facts, providing little interpretation” (105). (See also Riley.) This second memo, composed by Brian Russell, was “adamantly objective” (105). For example, in addressing the issue of whether or not a second O-ring would seal if the first one failed because of cool temperatures, Russell wrote, “At 100°F the [O]-ring maintained contact. At 75°F the [O]-ring lost contact for 2.4 seconds. At 50°F the [O]-ring did not re-establish contact in ten minutes at which time the test was terminated. The conclusion is that secondary sealing capability in the SRM filed joint cannot be guaranteed” (qtd. in Winsor 105). If Russell was striving for an ethical, truthful end product, he undoubtedly

achieved his goal. No one examining the *Challenger* explosion contends that Russell's memo was dishonest.

However, as Dorothy Winsor explains, in spite of its truthfulness, the memo did not accurately convey the danger of the O-rings. One NASA official claimed that no one who read the memo understood its implications: "There were a whole lot of people who weren't smart enough to look behind the veil [of indirectness in the memo] and say, 'Gee, I wonder what this means'" (qtd. in Winsor 105). Although the memo was honest, it did not appear to communicate its intent honestly. What Russell seemingly failed to appreciate was that his version of the truth might not correspond with his audience's. What was "important and problematic...was the interpretation or meaning of this charring and what should be done in light of it" (Dombrowski, "*Challenger*" 105). It was the process of interpretation that prevented understanding, and that interpretation is socially constructed and therefore requires a social, dialogic approach to the problem.

It appears that what Russell's memo lacked was an understanding of the audience's needs and processes of interpretation, knowledge that could have been more readily available if Russell had more fully implemented dialogic ethics. This nonfoundational approach would have required Russell to interact with his audience to determine their needs and values. He would have had to engage in a process of ethically judging and incorporating (if need be) those other values into his ethical decision-making process.

If Russell's primary ethical focus was on the *end product* (objective truth), he might not have fully examined the processes through which he should achieve that truth. Should he have also used Kantian ethics to universalize his standard of truth? Did his version of truth correspond with others'? Did his honest communication truthfully convey what it was meant to, or did it fall short of the readers' expectations of what truth should be and what form it should take?

How contextual foundational ethics could have alleviated this problem.

Contextual foundational ethics might have answered some of these questions. Whereas it seems that Russell was striving for an objectively truthful document as his ultimate ethical goal, contextual foundational ethics could have reminded him that he needed an ethical method of inquiry leading up to that goal. First, using contextual foundational ethics, Russell could have employed Kantian ethics, a deontological approach that necessitates examining processes as well as products. Using the categorical imperative, Russell might have asked himself, "Can I wish that my actions in creating this truthful document be used in every similar situation?" Most likely, he would have insisted that truthfulness *is* important. However, he might also have asked himself, "Can I wish that an 'adamantly objective' document be used in every similar situation?" He might have looked at his unique position to make recommendations and realized that in similar situations, the type of document and language that he would want universalized would be those which balanced objective data with clear recommendations. He would not have had to sacrifice truthfulness, but by using Kantian ethics as his primary foundational ethic,

Russell might have been more willing to make explicit recommendations against the flight.

Furthermore, contextual foundational ethics could have offered communicators a more complete *process of ethical negotiation*. Contextual foundational ethics demands that the communicator acknowledge that there is no one “correct” end; instead, there are ends that are “tentative, incomplete, and inadequate” (Markel 293). Since the end results are hardly ever complete in themselves, then, the communicator must

carry out the decision-making process in a communicative [dialogic] ethics framework...He will abandon one line of inquiry and start another..., return to a line of inquiry that seemed a dead end, and all of a sudden it will yield a new insight. He will resolve the problem, then realize significant shortcomings in his solution. Markel 293

She must be aware constantly that her ethical decisions are not final but need to be reexamined and refined continually. To do so, the communicator must understand the values of others, using them to appraise and polish her ethical resolutions.

Thus, the communicator needs a dialogic ethical framework (which describes ethical processes) as well as a foundational one (which prescribes ethical products). She must be able to work with others in her discourse community to ensure that she is not considering only her own values and unnecessarily excluding the values of others. When she and her discourse community agree on certain ethical ends, the communicator must survey her audience to determine the best means of creating and presenting that end.

Using this dialogic approach Russell might have collaborated with others to determine what their needs and values were. He might have found that the NASA manager to whom he was writing his memo valued truthful *recommendations* over truthful *objectivity*. Then, Russell could have revised his memo to correspond with the manager's expectations of truth. For example, Russell might have found that he needed to explicitly state recommendations for the NASA managers because they did not value or understand his objective data as he did. With this knowledge, Russell might have concluded his memo by stating, "We do not recommend that you launch the shuttle in temperatures of 75° or less because the O-rings did not completely seal at these temperatures." This declaration would not have sacrificed the truthful end that Russell seems to have desired. However, it might have more completely reflected and incorporated the needs of NASA personnel, which might have been discernible in a dialogic framework. It would have more fully implemented a *process* of negotiating needs and values as well as methods of manifesting those values. In short, it would have been a more contextual foundational approach to ethics, and it might have granted Russell a more complete ethical approach to his memo.

Alleviating Nonfoundational Ethics' Impracticality

Finally, nonfoundational ethics can be unrealistic and sometimes impossible for the communicator to employ. For example, dialogic ethics demands socially constructed values, but social consensus can be impossible, and people in positions of authority

sometimes will not allow for a genuinely dialogic ethics. (See Chapter Four.) Hence, at times communicators simply cannot implement truly nonfoundational ethics.

One of the flaws that makes dialogic ethics impractical is its requirement that ethical decisions incorporate “Necessary democratic procedures [such as] unrestricted debate and discussion” (Johannessen, *Ethics* 25). Dialogic ethics demands that the communicator attempt to allow every voice interested in the discussion to express itself. It is generally impossible, though, for a communicator to consider *every* opinion that might possibly be related to an ethical problem. Moreover, as Mike Markel warns, “The advice that we negotiate among competing viewpoints presumes that all those viewpoints are reasonable” (“A Case” 290). Every voice in a discussion might not warrant equal consideration, and others might warrant more. Since the communicator cannot consider every possible opinion and since all opinions may not be equally reasonable, the communicator must know how to determine which opinions to negotiate with fully. Whereas nonfoundational ethics generally does not offer guidelines for the communicator’s discretion, contextual foundational ethics can.

Contextual foundational ethics can help the communicator understand what to do when dialogic ethics falls short of its ideal; it can help the communicator ascertain which values to consider most fully in such a situation. Mike Markel concedes that ideally his ethical approach would include “the strictures of...[dialogic] ethics: inclusion of all stakeholders, as well as free, open, and uncoerced communication” (293). However, he admits that “these strictures are unattainable in most cases” (293). Instead, he urges the

communicator to realize the necessary shortcomings of dialogic ethics but to try nevertheless to implement it as fully as possible in any given rhetorical situation.

For example, Markel encourages the communicator to meet with people who might be affected by the decision and in more significant situations to form focus groups to study the implications of ethical decisions—all in order to understand others' input. Still, he admonishes the communicator to understand that this line of inquiry will not yield solid and always satisfying answers (293). In fact, this method will produce “tentative, incomplete, and inadequate answers” (293). The communicator cannot address and fully consider every available ethical opinion, especially given the timelines in which technical communicators must work. It offers the communicator a means of *attempting* to access as many viewpoints as possible. As Markel concludes, although “Open, uncoerced discussion involving questions of value is flawed, . . . it is the best way to try to achieve ethically informed consensus” (295). Although contextual foundational ethics admits that dialogic ethics is impractical, it nonetheless invites the communicator to employ dialogic ethics as fully as possible while also understanding its limitations.

Also helping to alleviate the impracticality of nonfoundational ethics, contextual foundational ethics does not require complete consensus within the discourse community. It recognizes some values as irreconcilable with others. For example, it does not ask the communicator to achieve a social ethos that reflects society's values. Such a consensus is impossible because of the myriad needs and beliefs in any group or society. When Mike Markel calls for an “ethically informed consensus” through dialogic ethics, he is not

demanding unanimity of values. Instead, he is asking for an ethical consensus as opposed to dissensus (295). He promotes an ethical process of collaboration (not estrangement) that involves as many people as possible in deciding and implementing foundational values such as Kantian ethics. (See also Thomas and Olsen 39.) Engaging in the process of creating consensus means acknowledging and dealing with dissent.

When dissent is overwhelming, though, how does the communicator know which opinion to privilege? She must select among the competing voices, a matter that nonfoundational ethics generally does not address. However, contextual foundational ethics does. Contextual foundational ethics attempts to help the communicator choose which voices are most suitable for her negotiations. It offers a guideline for selecting the most valid viewpoints when it insists that the communicator ask herself questions of Kantian rights.

After the communicator has collaborated with others to glean their ethical input, she attempts to implement it through Kantian ethics. The communicator then can judge these social values, asking herself, “If I implement this particular ethical solution, can I desire that it would become a universal law?” and “Will this solution treat other humans as ends themselves and not means to ends?” If the communicator cannot answer “Yes” to both of these questions, then the values and solutions that she is examining do not fully reflect Kantian ethics. As a result, they probably are not fully ethical solutions. If the communicator *can* answer “Yes” to both questions, the ethical settlement she is exploring more completely reflects Kantian ethics. The communicator can then consider more

thoroughly the options that best manifest the categorical imperative. In this way, contextual foundational ethics can help the communicator to determine which voices demand her most careful attention.

Admittedly, this process is not perfect. Some very unethical actions could appear to pass the test of Kant's categorical imperative, and some of the most ethical options available could appear to fail it. However, the communicator must remember that contextual foundational ethics is a "flexible, fluid, and recursive" process (Markel 293); it demands that the communicator use the insight of others in her discourse community to critique and refine her own ability to make ethical decisions. Although the technical communicator will usually be limited in the amount of time that she can contribute to negotiating, judging, and renegotiating her ethical decisions, simply attempting to do so can help her become more ethically aware and a better ethical decision-maker.

How the *Challenger* incident could reflect nonfoundational ethics that is not practical. In dialogic ethics, deference to others is vitally important in order to fully recognize the value of each person and her opinions. It is a convention supported by both dialogic ethics' insistence upon allowing each individual to express herself fully and professional ethics' mandate to treat others with respect. However, the same politeness that is important to dialogic ethics can actually make that ethic impossible and can hurt the ethical decision-making process.

Patrick Moore explains that in some cases MTI engineers used politeness irresponsibly. When testifying before the Presidential Commission investigating the

shuttle explosion, one engineer admitted, ““I never used the words ‘no go’ for launch. I did use the words that we cannot prove it is safe”” (qtd. in Moore 285). Seemingly, the engineer wanted to show deference to the NASA managers. He did not want to tell them what they must do with their flight, nor did he want to privilege his own conclusions over theirs. He simply stated what he saw to be the facts of the case and assumed that the managers’ own values and ethical awareness would enable them to do with that information what they needed. This engineer did not seem to believe that it was his place to force his viewpoints upon the managers.

According to Moore, it was politeness that likely caused this engineer not to tell NASA unequivocally to delay the flight. Moore concludes that “if a speaker is polite to a hearer, say by minimizing a concern, when the speaker does not agree with what the hearer is doing, then—if the hearer is so disposed—the hearer may interpret the speaker’s politeness as meaning it is okay to do it” (289). In other words, when politely allowing every voice to be heard in the process of ethical decision-making, the communicator may not want to censor any voices. In doing so, though, she may send the message that she agrees with each opinion, even if some of those values violate Kantian ethics. In such instances, the social convention of politeness can actually impede the content of the message. If politeness covers up a message, it becomes a primary motivating factor—even at the expense of other factors, such as foundational ethical needs. Perhaps the engineer who politely refused to say “no-go” wanted to give NASA the ability to form its own opinion on the matter; he did not want to mandate his decisions to it. However, by

allowing such politeness to color the content of his message, that engineer may have unintentionally conveyed to the NASA managers that an opinion to proceed with the flight was a legitimate one. As the *Challenger* disaster showed, though, that one particular viewpoint was not as legitimate as the opinion to delay the flight.

How contextual foundational ethics could have alleviated this problem.

Contextual foundational ethics might have been able to help mitigate this problem, though. Contextual ethics acknowledges that the communicator cannot heed every single voice in the discourse community. Moreover, it admits that some voices and values are more reasonable than others. To help the communicator find and fully negotiate with the most reasonable opinions, contextual foundational ethics offers guidelines from Kantian ethics to judge the competing social views: “Is this ethical opinion one that should be universalized?” and “Does this opinion treat humans as ends rather than means to ends?”

Using Kantian ethics, the polite MTI engineer might have noticed that in his ethical dilemma, the values of the NASA managers did not fully reflect Kantian ethics. If the managers privileged timeliness, for example, they might have based their decision to proceed with the flight on that value. If the MTI engineer examined this value based on Kantian ethics, though, he might have found that it did not reflect the categorical imperative as fully as the opinion to delay the flight. He might have questioned the value of timeliness: “Could I wish that everyone in my situation proceed with the launch in favor of timeliness?” However, he might have found that he would not want this situation universalized. For example, if he himself were one of the seven astronauts in the

Challenger, he might not have wanted to value timeliness so highly. As a result, the engineer might have realized that the value of timeliness was not fully congruent with Kantian ethics. With this knowledge, the engineer might have been more assertive with his own determinations and less polite toward the managers. By using foundational Kantian ethics, the communicator would have had to acknowledge that the value of the decision lie not just in the social valuation of the exigencies in a particular situation—such as the managers’ need to proceed with the flight because of past delays. He would have had to ask whether he would admit the possibility of proceeding with a questionable flight if time and money were *not* such pressing factors.

More importantly, the managers’ values of timeliness and cost-effectiveness did not fulfill the second mandate of the categorical imperative: to treat humans as ends in themselves (Markel “A Case” 291). The managers wanted the flight to proceed on the January date and did not want to incur the expenses of delaying it again. Because their primary values were probably timeliness and cost-effectiveness, the managers perhaps did not fully consider the astronauts as ends in themselves. Instead, the managers’ values used the astronauts as means to an end—an on-schedule flight. The astronauts were tools for achieving that end more so than they were individuals whose lives could possibly be in danger.

In each situation, the MTI engineer might have concluded that, from a Kantian perspective, a decision to proceed with the flight was less ethical than a decision to delay. Once he had determined that proceeding with the flight was less ethical, he could have

given it less consideration; he might have been more willing to balance the politeness demanded by dialogic ethics with his ethical obligation to implement Kantian ethics as fully as possible. He might have said “no go.”

Conclusion

As the examples from the space shuttle *Challenger* disaster show, contextual foundational ethics could possibly offer a more complete ethics in technical communication. Contextual foundational ethics forces the communicator to understand that ethics is a complex matter that is never fully resolved. Instead, the communicator must try to implement foundational ethics as fully as possible within the boundaries of her discourse community. This never-ending process of ethics requires aspects of both foundational and nonfoundational ethics, and—perhaps most importantly—a commitment from the communicator to employ these ethical approaches as fully as possible.

Communicators must also remember, though, that contextual foundational ethics is by no means an ethical cure-all. In fact, in some situations communicators may find that either a foundational or nonfoundational approach to an ethical dilemma serves them better than contextual foundational ethics. However, contextual foundational ethics *can* help alleviate some of the problems in foundational and nonfoundational ethics. Moreover, since contextual foundational ethics includes aspects of *both* approaches, it isolates neither one. Proponents of both foundational and nonfoundational ethics can find

characteristics of their chosen ethical approaches in contextual foundational ethics, and therefore they might be willing to accept the middle ground of contextual foundational ethics. For these reasons, contextual foundational ethics can perhaps offer a more complete ethics for technical communication.

Perhaps more importantly, though, contextual foundational ethics offers if not a *fuller*, at least *another* approach to ethics in technical communication. No field, especially one as constantly changing as technical communication, can rely on *one* ethic. Therefore, both the field of technical communication and each individual technical communicator must commit to a never-ending exploration into ethics, searching not for more complete answers but for more thorough questions. We must understand that the issue of ethics is never resolved and that each new ethical dilemma offers us another opportunity to refine our ethical thinking. Ultimately, perhaps the most significant contribution that studies of ethics offer us is not a final answer but a renewed devotion to the tireless search for the *good* that we should do and the *right* we should desire.

Bibliography

Bibliography

- “About STC—PR.” *Society for Technical Communication*. Web site. 1998. 9 March 2001. <<http://www.stc-va.org>>.
- Allen, Jo. “The Case Against Defining Technical Writing.” *Journal of Business and Technical Communication* 4.2 (1990): 68-77. Rpt. in *Defining Technical Communication*. Ed. Dan Jones. Arlington, VA: Society for Technical Communication, 1996. 9-14.
- Allen, Lori and Dan Voss. “Ethics for Editors: An Analytical Decision-making Process.” *IEEE Transactions on Professional Communication* 41.1 (1998): 58-65.
- and ---. *Ethics in Technical Communication: Shades of Gray*. New York: John Wiley and Sons, 1997.
- Allison, Nancy. “Nancy’s Wordsmithy: Little Nothings.” *Technical Communication* 42 (1995): 171-72.
- Arnett, Ronald. “The Status of Communication Ethics Scholarship in Speech Communication Journals from 1915-1985.” *Central States Speech Journal* 38 (1987): 44-61.
- Aydelotte, Frank. “Training in Thought as the Aim of Elementary English Course as Taught at MIT.” *Engineering Record* 24 February (1917): 300-02.
- Barabas, Christine. “Uncovering the CYA Phenomenon in Organizational Writing: Initial Findings.” *Technical Communication* 40 (1993): 344-48.

- Barton, Ben and Marthalee Barton. "Ethos, Persona, and Role Confusion in Engineering: Toward a Pedagogy for Technical Discourse." *Technical Communication: Perspectives for the Eighties*. Eds. J.C. Mathes and Thomas E. Pinelli. Hampton, VA: NASA, 1981. 447-53.
- and ---. "Postmodernism and the Relation of Word and Image in Professional Discourse." *The Technical Writing Teacher* 17 (1990): 256-70.
- Beck, Charles E. "Implications of Metaphors in Defining Technical Communication." *Journal of Technical Writing and Communication* 21 (1991): 3-15. Rpt. in *Defining Technical Communication*. Ed. Dan Jones. Arlington, VA: Society for Technical Communication, 1996. 47-53.
- Ben-Chaim, M. "How Do Facts Speak for Themselves? The Doctrine and Practice of Classical Empiricism." *Journal of Technical Writing and Communication* 26 (1996): 3-19.
- Bensel-Meyers, Linda. Class lecture. English 682. University of Tennessee, Knoxville. 19 April 2001.
- Berlin, James A. "Postructuralism, Semiotics, and Social-epistemic Rhetoric: Converging Agendas." *Defining the New Rhetorics*. Sage Series in Written Communication, Volume 7. Eds. Theresa Enos and Stuart C. Brown. Newbury Park: Sage, 1993. 137-54.
- . "Rhetoric and Ideology in the Writing Class." *College English* 50 (1988): 477-94.

- Blankenship, Jane, Edward Murphy, and Marie Rosenwasser. "Pivotal Terms in the Early Works of Kenneth Burke." Rpt. in *Landmark Essays on Kenneth Burke*. Anaheim, CA: Hermagoras Press, 1974. 71-90.
- Britton, W. Earl. "What is Technical Writing? A Redefinition." *The Teaching of Technical Writing*. Eds. D.H. Cunningham and H.A. Estrin. Urbana, IL: National Council of Teachers of English, 1975. 9-15.
- Brockman, R. John and F. Rook, eds. *Technical Communication and Ethics*. Arlington: Society for Technical Communication, 1989.
- Bryan, John. "Down the Slippery Slope: Ethics and the Technical Writer as Marketer." *Technical Communication Quarterly* 1.1 (1992): 73-88.
- Buchholz, William J. "Deciphering Professional Codes of Ethics." *IEEE Transactions on Professional Communication* 32.3 (1989): 62-68.
- Burke, Kenneth. *Counter-Statement*. Berkeley: U of California P, 1968.
- . *A Grammar of Motives*. Berkeley: U of California P, 1969.
- . *The Philosophy of Literary Form*. Berkeley: U of California P, 1973.
- . *A Rhetoric of Motives*. Berkeley: U of California P, 1969.
- . *The Rhetoric of Religion: Studies in Logology*. Berkeley: U of California P, 1970.
- Campbell, Charles P. "Ethos: Character, Persona, Purpose, and Ethics in Technical Writing." *IEEE Transactions on Professional Communication* 38 (1995): 132-38.
- Campbell, John Angus. "Rhetorical Theory in the Twenty-first Century: A Neo-classical Perspective." *The Southern Communication Journal* 63 (1998): 291-308.

- Campbell, Paul N. "The *Personae* of Scientific Discourse." *Quarterly Journal of Speech* 61 (1975): 391-405.
- "Challenger (STA-099, OV-99)." *NASA*. Web page. 1 July 2001.
<<http://www.science.ksc.nasa.gov/shuttle/resources/orbiters/challenger.html>>.
- "Challenger Disaster." *Wake Forest University*. Web page. 1 July 2001.
<<http://www.wfu.edu/Academic-departments/History/wreview/bwalker.html>>.
- Chesebro, James W. "A Construct for Assessing Ethics in Communication." *Central States Speech Journal* 20 (1969): 104-14.
- Clark, Gregory. "Ethics in Technical Communication: A Rhetorical Perspective." *IEEE Transactions on Professional Communication* 30.3 (1987): 190-95.
- . "Professional Ethics from an Academic Perspective." *Journal of Computer Documentation* 18 (1994): 32-38.
- . "Rescuing the Discourse Community." *College Composition and Communication* 45 (1994): 61-74.
- Condit, Nancy. "Ethical Responsibilities of Medical Writers to the Lay Press: Editorial Comment in News Reporting." *Medical Communications* 12 (1984): 78-80.
- Coney, Mary B. "Technical Readers and their Rhetorical Roles." *IEEE Transactions on Professional Communication* 35 (1992): 58-63.
- Cowen, Robert C. "Garbage Under Glass: What Are Scientists Dishing Out?" *IEEE Transactions on Professional Communication* 23 (1980): 116-17.

Cox, Barbara G. and Charles G. Roland. "How Rhetoric Confuses Scientific Issues."

IEEE Transactions on Professional Communication 16 (1973): 140-42.

Dandridge, Edmund P., Jr. "Notes Toward a Definition of Technical Writing." *The*

Teaching of Technical Writing. Eds. D.H. Cunningham and H.A. Estrin. Urbana,

IL: National Council of Teachers of English, 1975. 15-20.

David, Carol and Margaret Baker Graham. "Conflicting Values: Team Management

Portrayed in Epic Metaphors." *Journal of Business and Technical Communication*

11 (1997): 24-49.

Dobrin, David. "Is Technical Writing Particularly Objective?" *College English* 47

(1985): 237-51.

---. "What's Technical About Technical Writing?" *New Essays in Technical and*

Scientific Communication: Research, Theory, Practice. Eds. Paul V. Anderson, R.

John Brockmann, and Carolyn R. Miller. Farmingdale, NY: Baywood Publishing

Co., 1983: 227-50.

---. "What's the Purpose of Teaching Technical Communication?" *The Technical Writing*

Teacher 12 (1985): 146-60.

Doheny-Farina, Stephen. "Ethics and Technical Communication." *Technical and*

Business Communication: Bibliographic Essays for Teachers and Corporate

Trainers. Ed. C.H. Sides. Urbana: National Council of Teachers for English,

1989.

- Dombrowski, Paul M. "Can Ethics Be Technologized? Lessons from *Challenger*, Philosophy, and Rhetoric." *IEEE Transactions on Professional Communication* 38.3 (1991): 146-50.
- . "Challenger and the Social Contingency of Meaning: Two Lessons for the Technical Communication Classroom." *Humanistic Aspects of Technical Communication*. Ed. Paul M. Dombrowski. Amityville: Baywood Publishing, 1994. 97-109.
- , ed. *Humanistic Aspects of Technical Communication*. Amityville: Baywood Publishing, 1994.
- . "Ethics and Technical Communication: The Past Quarter Century." *Journal of Technical Writing and Communication* 30 (2000): 3-29.
- . *Ethics in Technical Communication*. Needham Heights: Allyn & Bacon, 2000.
- Dragga, Sam. "Is This Ethical? A Survey of Opinion on Principles and Practices of Document Design." *Technical Communication* 43 (1996): 255-65.
- . "A Question of Ethics: Lessons from Technical Communicators on the Job." *Technical Communication Quarterly* 6 (1997): 161-78.
- "Ethical Principles for Technical Communicators." *Society for Technical Communication*. Web site. 1998. 3 June 2001. <<http://www.stc.org/ethical.html>>.
- Evans, William E. "The Basic Technical Writing Course: Skills and Ethics?" *Technical Communication: Perspectives for the Eighties*. Eds. J.C. Mathes and Thomas E. Pinelli. Hampton, VA: NASA, 1981. 441-46.

- Faber, Brenton. "Intuitive Ethics: Understanding and Critiquing the Role of Intuition in Ethical Decisions." *Technical Communication Quarterly* 8 (1999): 189-202.
- Fahnestock, Jeanne. "Accommodating Science: The Rhetorical Life of Scientific Facts." *Written Communication* 3 (1986): 275-96.
- Freed, Richard C. "Postmodern Practice: Perspectives and Prospects." *Professional Communication: The Social Perspective*. Eds. Nancy R. Blyler and Charlotte Thralls. Newbury Park: Sage, 1993. 196-214.
- Gage, John T. "Why Write?" *Rhetoric: Concepts, Definitions, Boundaries*. Eds. William A. Covino and David A. Jolliffe. Boston: Allyn and Bacon, 1995. 715-33.
- Garver, Eugene. "Teaching Writing and Teaching Virtue." *Journal of Business Communication* 22 (1985): 51-73.
- Goldbort, Robert C. "Scientific Writing: Three Neglected Aspects." *Journal of Environmental Health* 60.8 (1998): 26-29.
- Golen, Steven, Celeste Powers, and M. Agnes Titkemeyer. "How to Teach Ethics in a Basic Business Communication Class—Committee Report of the 1983 Teaching Methodology and Concepts Committee, Subcommittee 1." *Journal of Business Communication* 22 (1985): 75-83.
- Gregg, Richard B. "Kenneth Burke's Prolegomena to the Study of the Rhetoric of Form." Rpt. in *Landmark Essays on Kenneth Burke*. Anaheim, CA: Hermagoras Press, 1978. 117-34.

- Griffin, Jack. "When Do Rhetorical Choices Become Ethical Choices?" *Proceedings of the 27th International Technical Communication Conference*. Washington, D.C.: Society for Technical Communication, 1980. W77-W84.
- Grimshaw, James A., Jr. and William E. McCarren. "Hidden Persuasion in Technical Writing." *The Technical Writing Teacher* 9 (1981): 19-22.
- Gross, Alan G. "Discourse on Method: The Rhetorical Analysis of Scientific Texts." *PRE/TEXT* 9 (1988): 169-85.
- Grossberg, Kathryn Milner. "The Truth About Technical Writing." *The English Journal* 67.4 (1974): 100-04. Rpt. in *Defining Technical Communication*. Ed. Dan Jones. Arlington, VA: Society for Technical Communication, 1996. 15-19.
- Guinn, Dorothy. "Ethos in Technical Discourse." *The Technical Writing Teacher* 11 (1983): 31-37.
- Hagge, John. "Ethics, Words, and the World in Moore's and Miller's Accounts of Scientific and Technical Discourse." *Journal of Business and Technical Communication* 10 (1996): 461-75.
- Halloran, Stephen M. "Classical Rhetoric for the Engineering Student." *Journal of Technical Writing and Communication* 1 (1971): 17-24.
- . "Technical Writing and the Rhetoric of Science." *Journal of Technical Writing and Communication* 8 (1978): 77-88. Rpt. in *Defining Technical Communication*. Ed. Dan Jones. Arlington, VA: Society for Technical Communication, 1996. 68-74.

- Harris, Elizabeth. "Comment and Response: Elizabeth Harris Responds." *College English* 41.7 (1980): 875-29.
- Hartung, Krik K. "What Are Students Being Taught About the Ethics of Technical Communication? An Analysis of the Ethical Discussions Presented in Four Textbooks" *Journal of Technical Writing and Communication* 28 (1998): 363-83.
- Hayman, Bonnie W. "Do We Need to Upgrade Our Profession?" *Intercom* 40.2 (1994): 3-4, 11. Rpt. in *Defining Technical Communication*. Ed. Dan Jones. Arlington, VA: Society for Technical Communication, 1996. 6-8.
- Hays, Robert. "What's Technical Writing?" *The Teaching of Technical Writing*. Eds. D.H. Cunningham and H.A. Estrin. Urbana, IL: National Council of Teachers of English, 1975. 3-8.
- Herndl, Carl G., Barbara A. Fennell, and Carolyn R. Miller. "Understanding Failures in Organization Discourse: The Accident at Three Mile Island and the Shuttle Challenger Disaster. *Textual Dynamics of the Professions: Historical and Contemporary Studies of Writing in Professional Communities*. Eds. C. Bazerman and J. Paradis. Madison: U of Wisconsin P, 1991. 279-305.
- Herrington, TyAnna K. "Ethics and Graphic Design: A Rhetorical Analysis of the Document Design in the *Report of the Treasury on the Bureau of Alcohol, Tobacco, and Firearms Investigation of Vernon Wayne Howell also Known as David Koresh*." *IEEE Transactions on Professional Communication* 38 (1995): 151-57.

- Herzberg, Bruce. "Rhetoric Unbound: Discourse, Community, and Knowledge."
Professional Communication: The Social Perspective. Eds. Nancy R. Blyler and
 Charlotte Thralls. Newbury Park: Sage, 1980. 35-48.
- Huckin, Thomas N. and Leslie A. Olsen. *Technical Writing and Professional
 Communication: For Nonnative Speakers of English*. 2nd ed. New York: McGraw-
 Hill, 1991.
- Hynds, Patricia and Wanda Martin. "Atrisco Well #5: A Case Study of Failure in
 Professional Communication." *IEEE Transactions on Professional
 Communication* 38 (1995): 139-45.
- "IEEE Professional Communication Society Homepage." *IEEE Professional
 Communication Society*. Web site. 1998-2001. 9 March 2001.
 <www.ieeepcs.org>.
- Jensen, J. Vernon. *Ethical Issues in the Communication Process*. Mahwah, NJ: Lawrence
 Erlbaum Associates, 1997.
- Johannesen, Richard L. "The Emerging Concept of Communication as Dialogue."
Quarterly Journal of Speech 57 (1971): 373-82.
- . *Ethics in Human Communication*. Prospect Heights: Waveland, 1990.
- Johnson, Nan. "Ethos and the Aims of Rhetoric." *Essays on Classical Rhetoric and
 Modern Discourse*. Eds. Robert J. Connors, Lisa S. Ede, and Andrea A. Lunsford.
 Carbondale: Southern Illinois University Press, 1984. 98-114.

- Jones, Dan. "A Question of Identity." *Technical Communication* 42 (1995): 567-69.
Rpt. in *Defining Technical Communication*. Ed. Dan Jones. Arlington, VA:
Society for Technical Communication, 1996. 3-5.
- Kant, Immanuel. *The Fundamental Principles of the Metaphysics of Ethics*. Trans. Otto
Manthey-Zorn. New York: Appleton-Century-Crofts, 1938.
- Katz, Steven B. "The Ethic of Expediency: Classical Rhetoric, Technology, and the
Holocaust." *College English* 54 (1992): 255-72.
- Keller, Paul W. and Charles T. Brown. "An Interpersonal Ethic for Communication."
Journal of Communication 18 (1968): 73-81.
- Kelley, Patrick M. and Roger E. Masse. "A Definition of Technical Writing." *The
Technical Writing Teacher* 4 (1977): 94-97.
- Kent, Thomas. "Formalism, Social Construction, and the Problem of Interpretive
Authority." *Professional Communication: The Social Perspective*. Eds. Nancy R.
Blyler and Charlotte Thralls. Newbury Park: Sage, 1980. 254-63.
- Killingsworth, M. Jimmie. "Thingishness and Objectivity in Technical Style." *Journal of
Technical Writing and Communication* 17 (1985): 105-13. Rpt. in *Defining
Technical Communication*. Ed. Dan Jones. Arlington, VA: Society for Technical
Communication, 1996. 87-91.
- Kremers, Marshall. "Teaching Ethical Thinking in a Technical Writing Course." *IEEE
Transactions on Professional Communication* 32.2 (1989): 58-61.

- Kreth, M, Carolyn R. Miller, and Janice Redish. "Comments on "Instrumental Discourse Is As Humanistic As Rhetoric." *Journal of Business and Technical Communication* 10 (1996): 476-90.
- Laroche, Mary. "Technical Writing in the Picaresque Mode: A Perspective from Experience." *College English* 45 (1983): 61-66.
- Lipson, Carol. "A Social View of Technical Writing." *Journal of Business and Technical Communication* 2.1 (1988): 7-20.
- Lunsford, Andrea A. "Classical Rhetoric and Technical Writing." *College Composition and Communication* 27.3 (1976): 289-91.
- Macintosh, Fred H. "Teaching Writing for the World's Work." *The Teaching of Technical Writing*. Eds. D.H. Cunningham and H.A. Estrin. Urbana, IL: National Council of Teachers of English, 1975. 23-33.
- Marcuse, Michael J. "Ethos in Technical Discourse: The Current State of the Question." *Proceedings: Thirty-first Conference on College Composition and Communication: Technical Communication Series*. Ed. John A. Muller. Lubbock, TX: Association of Teachers of Technical Writing, 1980. 172-79.
- Marder, Daniel. "Technical Reporting is Technical Rhetoric." *Technical Communication* 25.4 (1978): 11-13. Rpt. in *Defining Technical Communication*. Ed. Dan Jones. Arlington, VA: Society for Technical Communication, 1996. 83-86.

- Markel, Mark. "A Basic Unit on Ethics for Technical Communicators." *Humanistic Aspects of Technical Communication*. Ed. Paul M. Dombrowski. Amityville: Baywood Publishing, 1994: 199-221.
- . "An Ethical Imperative for Technical Communicators." *IEEE Transactions on Professional Communication* 36 (1993): 81-86.
- . "Ethics and Technical Communication: A Case for Foundational Approaches." *IEEE Transactions on Professional Communication* 40 (1997): 284-98.
- Martin, Wanda and Scott P. Sanders. "Ethics, Audience, and the Writing Process: Bringing Public Policy Issues into the Classroom." *Technical Communication Quarterly* 3 (1994):147-63.
- "Meltdown at Three Mile Island." *PBS*. Web site. 1 July 2001.
<<http://www.pbs.org/wgbh/pages/amex/three>>.
- Michaelson, Herbert. "How an Author Can Avoid the Pitfalls of Practical Ethics." *IEEE Transactions on Professional Communication* 33 (1990): 58-61.
- Miller, Carolyn R. "Comment and Response: Carolyn Miller Responds." *College English* 41 (1980): 825-27
- . "The Ethos of Science and the Ethos of Technology." *Proceedings: 31st Conference on College Composition and Communication: Technical Communication Series*. Ed. J. Muller. Lubbock, TX: Association of Teachers of Technical Writing, 1980. 184-91.
- . "A Humanistic Rationale for Technical Writing." *College English* 40 (1979): 610-17.

- . "Rhetoric and Composition Studies: The Problem of the One and the Many." *Defining the New Rhetorics*. Sage Series in Written Communication, Volume 7. Eds. Theresa Enos and Stuart C. Brown. Newbury Park: Sage, 1993. 79-94.
- . "Some Perspectives on Rhetoric, Science, and History." *Humanistic Aspects of Technical Communication*. Ed. Paul M. Dombrowski. Amityville: Baywood Publishing, 1994. 111-23.
- . "Technology as a Form of Consciousness: A Study of Contemporary Ethos." *Central States Speech Journal* 29 (1978): 228-36.
- . "What's Practical About Technical Writing?" *Technical Writing: Theory and Practice*. Eds. B. Fearing and W.K. Sparrow. New York: MLA, 1989. 14-24.
- Miller, Thomas P. "Teaching Professional Writing as Social Praxis." *Journal of Advanced Composition* 11 (1991): 57-72.
- Minor, Dennis. "Chair's Comments: Ethos in Technical Discourse." *Technical Communication: Perspectives for the Eighties*. Eds. J.C. Mathes and Thomas E. Pinelli. Hampton, VA: NASA, 1981. 439-40.
- Mitchell, John H. "It's a Craft Course: Indoctrinate, Don't Educate." *The Technical Writing Teacher* 4 (1976): 2-6.
- Moore, Patrick. "Instrumental Discourse is as Humanistic as Rhetoric." *Journal of Business and Technical Communication* 10 (1996): 476-90.
- . "When Politeness is Fatal: Technical Communication and the Challenger Accident." *Journal of Business and Technical Communication* 6 (1992): 269-92.

Murray, Jeffrey W. "An Other Ethics for Kenneth Burke." *Communication Studies* 49 (1998): 29-48.

Nilsen, Thomas R. *Ethics of Speech Communication*. 2nd ed. Indianapolis: Bobbs-Merrill, 1974.

Orbell, Brenda. "The DoD Tailhood Report: Unanswered Questions." *Journal of Technical Writing and Communication* 25 (1995): 201-13.

Ornatowski, C. "Between Efficiency and Politics: Rhetoric and Ethics in Technical Writing." *Technical Communication Quarterly* 1 (1992): 91-103.

Parson, Gerald M. "Ethical Factors Influencing Curriculum Design and Instruction in Technical Communication." *IEEE Transactions on Professional Communication* 30 (1987): 202-06.

Perica, Louis. "Honesty in Technical Communication." *Technical Communication* 27 (1972): 2-6.

Pitcairn, Lucinda. "Some Ethical Considerations in Medical Writing." *Medical Communications* 10 (1982): 89-94.

Pojman, Louis P. *Ethical Theory: Classical and Contemporary Readings*. 2nd ed. Belmont, CA: Wadsworth, 1995.

Porter, James E. "Developing a Postmodern Ethics of Rhetoric and Composition." *Defining the New Rhetorics*. Sage Series on Written Communication, Volume 7. Eds. Theresa Enos and Stuart C. Brown. Newbury Park: Sage, 1993. 207-26.

- . "The Role of Law, Policy, and Ethics in Corporate Composing: Toward a Practical Ethics for Professional Writing." *Professional Communication: The Social Perspective*. Eds. Nancy Roundy Blyler and Charlotte Thralls. Newbury Park: Sage Publications, 1993. 128-143.
- . "Truth in Technical Advertising: A Case Study." *IEEE Transactions on Professional Communication* 30.3 (1987): 182-89.
- Possin, Kevin. "Ethical Argumentation." *Journal of Technical Writing and Communication* 21 (1991): 65-72.
- Radez, Frank. "STC and the Professional Ethic." *Technical Communication* 27 (1980): 7-10.
- Riley, Kathryn. "Telling More Than the Truth: Implicature, Speech Acts, and Ethics in Professional Communication." *Journal of Business Ethics* 12 (1993): 179-96.
- Rubens, Paul M. "Technical and Scientific Writing and the Humanities." *Research in Technical Communication: A Bibliographic Sourcebook*. Eds. Michael G. Moran and Debra Journet. Westport: Greenwood, 1985. 3-23.
- Rubens, Philip. "The Cartoon and Ethics: Their Role in Technical Information." *IEEE Transactions on Professional Communication* 30 (1987): 196-201.
- Rude, Carolyn D. *Technical Editing*. 2nd ed. Boston: Allyn and Bacon, 1998.
- Russell, David R. "The Ethics of Teaching Ethics in Professional Communication: The Case of Engineering Publicity at MIT in the 1920s." *Journal of Business and Technical Communication* 7 (1993): 84-111.

- Sanders, Scott P. and M. Jimmie Killingsworth. "Introduction: Ethics in Professional Communication." *IEEE Transactions on Professional Communication* 38 (1995): 129-31.
- Sanders, Scott P. "How Can Technical Writing Be Persuasive?" *Solving Problems in Technical Writing*. Eds. Lynn D. Beene and Peter White. New York: Oxford, UP 1988. 55-78.
- . "Technical Communication and Ethics." *Foundations for Teaching Technical Communication: Theory Practice, and Program Design*. Greenwich: Ablex Publishing, 1997. 99-117.
- Sawyer, Thomas. "The Argument about Ethics, Fairness, or Right and Wrong." *Journal of Technical Writing and Communication* 18 (1988): 367-75.
- . *The Teaching of Technical Writing*. Eds. D.H. Cunningham and H.A. Estrin. Urbana, IL: National Council of Teachers of English, 1975. 108-14.
- Schaefer, Mary M. "Special Section on Ethics: Introduction." *Technical Communication* 27.3 (1980): 4.
- Schmelzer, Richard W. "New Responsibilities for the Technical Writer." *Journal of Technical Writing and Communication* 11 (1981): 217-21.
- Schroll, Christopher. "Technology and Communication Ethics: An Evaluative Framework." *Technical Communication* 4 (1995): 147-64.

- Scott, J. Blake. "Sophistic Ethics in the Technical Writing Classroom: Teaching 'Nomos,' Deliberation, and Action." *Technical Communication Quarterly* 4 (1995): 187-99.
- Scott, Robert L. "On Viewing Rhetoric as Epistemic: Ten Years Later." *Central States Speech Journal* 27 (1976): 258-266.
- Selfe, Richard. TC@MTU. *Michigan Technological University*. Web site. 2001. 9 March 2001. <http://www.hu.mtu.edu/hu_dept/tc@mtu/>.
- Settle, Martin. "'Make This Simple Test': A Lesson in Ethics in the Technical Writing Classroom." *Technical Communication* 41 (1994). ProQuest document.
- Shimberg, H. Lee. "Ethics and Rhetoric in Technical Writing." *Technical Communication* 25.4 (1978): 16-18.
- . "Technical Communicators and Moral Ethics." *Technical Communication* 27 (1980): 10-12.
- Sims, Brenda. "Linking Ethics and Language in the Technical Communications Classroom." *Technical Communication Quarterly* 2 (1993): 285-99.
- Stratton, Charles R. "Technical Writing: What It Is and What It Isn't." *Journal of Technical Writing and Communication* 9 (1979): 9-16. Rpt. in *Defining Technical Communication*. Ed. Dan Jones. Arlington, VA: Society for Technical Communication, 1996. 39-42.

- Sturges, David L. "Overcoming the Ethical Dilemma: Communication Decisions in the Ethic Ecosystem." *IEEE Transactions on Professional Communication* 35.1 (1992): 44-50.
- Sullivan, Dale L. "The Epideictic Rhetoric of Science." *Journal of Business and Technical Communication* 5 (1991): 229-45.
- . "Political-ethical Implications of Defining Technical Communication as a Practice." *Journal of Advanced Composition* 10: 375-86. Rpt. in *Humanistic Aspects of Technical Communication*. Ed. Paul M. Dombrowski. Amityville: Baywood Publishing, 1994. 223-34.
- Tebeaux, Elizabeth. "Comment and Response: Let's Not Ruin Technical Writing, Too." *College English* 41 (1980): 822-24.
- "Three Mile Island." *Electronic Library*. Web site. 1 July 2001.
<<http://www.encyclopedia.com/articles/12843.html>>.
- VanDeWeghe, Richard. "What is Technical Communication? A Rhetorical Analysis." *Technical Communication* 38 (1991): 295-99. Rpt. in *Defining Technical Communication*. Ed. Dan Jones. Arlington, VA: Society for Technical Communication, 1996. 64-67.
- Waddell, C. "Defining Sustainable Development: A Case Study in Environmental Communication." *Technical Communication Quarterly* 4 (1995): 201-16.
- Walter, John A. "Technical Writing: Species or Genus?" *Journal of Technical Writing and Communication* 7 (1977): 243-50. Rpt. in *Defining Technical*

Communication. Ed. Dan Jones. Arlington, VA: Society for Technical Communication, 1996. 27-30.

Walzer, Arthur E. "Professional Ethics, Codes of Conduct, and the Society for Technical Communication." *Technical Communication and Ethics*. Eds. R.J. Brockmann and F. Rook. Washington: STC, 1989. 101-105.

Walzer, Arthur E. and Alan Gross. "Positivists, Postmodernists, Aristotelians, and the Challenger Disaster." *College English* 56 (1994): 420-33.

Weiss, Edmond. "'Professional Communication' and the 'Odor of Mendacity.'" *IEEE Transactions on Professional Communication* 38 (1995): 169-175.

Whitburn, Merrill D. "Personality in Scientific and Technical Writing." *Journal of Technical Writing and Communication* 6 (1976): 299-306. Rpt. in *Defining Technical Communication*. Ed. Dan Jones. Arlington, VA: Society for Technical Communication, 1996. 75-78.

Wicclair, Mark R. and David K. Farkas. "Ethical Reasoning and Technical Communication: A Practical Framework." *Technical Communication* 31.2 (1984) 15-19.

Williams, Cindy. "Intel's Pentium Chip Crisis: An Ethical Analysis." *IEEE Transactions on Professional Communication* 40 (1997): 13-19.

Williams, Joseph M. *Style: Ten Lessons in Clarity and Grace*. 6th ed. New York: Longman, 2000.

- Winslade, William. "Truth and Honesty in Science." *Medical Communication* 11 (1983): 59-63.
- Winsor, Dorothy A. "Communication Failures Contributing to the *Challenger* Accident: An Example for Technical Communicators." *IEEE Transactions on Professional Communication* 31 (1988): 101-07.
- Wright, Iain. "ISTC: For the Professional Communicator." *The Institute of Scientific and Technical Communicators*. Web site. 2001. 9 March 2001.
<<http://www.istc.org.uk/>>.
- Yanez, Barbara. "Technical and Business Writer's Resource." *Inkspot*. Web site. 2000. 9 March 2001. <<http://www.inkspot.com/genres/tech/techdefine.html>>.
- Yee, C. "Technical and Ethical Professional Preparation for Technical Communication Students." *IEEE Transactions on Professional Communication* 31.4 (1988): 191-98.
- Young, J. Cromwell. "Responsibilities of Writers and Editors to Readers." *STWP Review* 8 (1961): 14-16.
- Zappen, Joseph P. "The Discourse Community in Scientific and Technical Communication." *Journal of Technical Writing and Communication* 19 (1989): 1-11.
- Zerbe, Michael J., A.J. Young, and E.R. Nagelhout. "The Rhetoric of Fraud in Breast Cancer Trials: Manifestations in Medical Journals and the Mass Media—and

Missed Opportunities.” *Journal of Technical Writing and Communication* 28
(1998) 39-61.

Vita

Shauna Bryant was born in Georgetown, Ohio on September 19, 1976. She spent her childhood in southern Georgia and middle Tennessee, graduating from Columbia Central High School in Columbia, Tennessee, in 1995. She attended Lambuth University in Jackson, Tennessee for four years, where she received a Bachelor of Arts in English in April, 1999. After moving to Knoxville, Tennessee, she attended the University of Tennessee, Knoxville. While at the University of Tennessee, she taught freshman composition and technical communication, and was active in her local chapter of the Society for Technical Communication. In August 2001, she earned from the university a Master of Arts in English with a concentration in Technical Communication.