THE IMPLIED AUTHOR IN TECHNICAL DISCOURSE

Mary B. Coney

The task of conveying technical information is usually taken to be the responsibility of the writer-researcher, aided possibly by editorial and supervisory reviews. And the test of success is usually understood to be a technically objective and accurate text, effectively presented to the intended reader. The subject of this paper is an inquiry into the existence of a fictitious personage, created by the writer-researcher, deliberately or not, to mediate between the author and the reader on the one side, and the author and the text on the other. If such a personage exists, the next question is whether this presence, often referred to as an implied author or "second self" in literary studies, is an appropriate rhetorical device for technical discourse; whether it enhances or distorts the information transfer from writer to text to reader. Such questioning can, I believe, lead to a more refined understanding of the nature of technical discourse and its relation to the reality it addresses.

To posit the concept of implied author is to suggest that the requirements of the text demand a being different in significant ways from the actual author. The need to make this distinction has long been expressed by literary critics. Edward Dowden in an 1877 essay on George Eliot detects a form in her fiction "more substantial than any mere human personality" with "fewer reserves." Wayne Booth makes this topic a central issue in his influential work of 1961, The Rhetoric of Fiction:

We can be satisfied only with a term that is as broad as the work itself but still capable of calling attention to that work as the pro-
duct of a choosing, evaluating person rather than as a self-existing thing [italics mine]. The "implied author" chooses, consciously or unconsciously, what we read; we infer him as an ideal, literary, created version of the real man; he is the sum of his own choices.

It is only by distinguishing between the author and his implied image that we can avoid pointless and unverifiable talk about such qualities as "sincerity" and "seriousness" in the author.2

While Booth is concerned with literary discourse, specifically prose fiction, the validity of his remarks can be extended to even the most objective appearing examples of technical discourse. This is not to argue from a radical post-positivist position, such as that held by Anthony Wilden, that the ideological nature of knowledge produces a "fiction of science," an "illusory image of science as a carefully constructed and repeatedly verified 'neutral' dialect within the communication of society."3 Nor, of course, to suggest that art and science make the same kind of claims to truth. But it is to argue that no simple one-to-one correspondence between language and reality—words and things—exists in discourses about science and technology. Even when the central aim of a piece of writing is to refer as directly as possible to reality (what James Kinneavy calls referential discourse), what is produced is not a duplication of that reality, but at best an abstraction in which any aspect of reality deemed irrelevant to the focus of the discourse is removed.4 It is at best a carefully selected version of "what went on." The result is no piece of fiction but also, to return to Booth's words, no "self-existing thing" either. Both are artifacts and, as such, imply an artificer inseparable from the object made. In this sense, as an author creates a text, he creates a version of himself—or herself, although the customary lack of gender bias is itself a sign of a disembodied voice—whose existence lies entirely within and is known only through the text itself. While we may in analyzing technical discourse be concerned with different kinds of differences between author and implied author from those found in literature ("sincerity" and "seriousness" for example are so taken for granted as to be nondistinctive characteristics in both the technical author and the projected self), a number of frequently occurring situations suggest our concern is both legitimate and necessary.

(1) In the case of multiple authorship, differences among the several writers-researchers on matters of methodology, findings, implications, writing styles, etc., are inevitable and, indeed,
desirable as a means of evaluating alternatives and testing solutions. Yet these differences must achieve resolution—however temporary—if the text reporting their research is to have a unity of effect. They must speak as one if they are to speak at all, and the achieved resolution is expressed by, and is the expression of, an implied author. Even when the speaker emerges to the forefront of the discussion by way of the first person plural pronoun, as in "We think . . . ," the antecedent is not the actual, diverse persons listed as co-authors, but rather an idealized, unified being who voices only the consensus of the group and filters out individual reservations. When doubts are expressed in the text, as in "We are not certain if . . . ," they belong with all the other agreed-upon statements of the text, statements made for and by the implied author.

(2) In contrast, single-authored texts will frequently employ the first person plural pronoun. Here, the many speak for the one, the "we" replacing the "I," the "our" the "my." Reasons for such a rhetorical shift can be as various as the examples found: a) a need to align one's work with the larger scientific community, to express the consensus of experts on an assumption one may be making, b) shyness or a sense of decorum and formality that is somehow better conveyed by wrapping the bare ego in the cloak of others. Whatever the cause, the result represents some degree of distancing from the original author.

(3) A change in audience for basically the same topic requires that the writer-researcher present his work and himself in quite different ways. The author implied in the article entitled "Nuclear Transplantation in Amphibia and the Importance of Stable Nuclear Changes in Promoting Cellular Differentiation" appearing in The Quarterly Review of Biology can be easily distinguished from the implied author of "Transplanted Nuclei and Cell Differentiation" in Scientific American. Yet both are to be distinguished from J. B. Gurdon, their common author. Neither voice is any more "authentic" than the other; each is simply the summary of decisions about the article's content, organization, and style that Gurdon made in consideration of its intended reader.

(4) In instances where the technical data have highly value-laden implications, writer-researchers will commonly provide no acknowledgment of these extratechnical matters and/or their own bias in relation to them. In texts dealing with
nuclear weapons testing devices or genetic engineering experiments, authors may well adopt a pose of neutrality on the social, moral, or political issues involved in order to keep the focus on their area of professional expertise. They may have other motives, of course, but whatever the reason, it is served by the implied author.

(5) This need for any exclusionary voice can also exist when researchers have begun to detect anomalies in their data which they cannot or will not account for at the period a particular text is being written. The suppression of these deviations may be only temporary until their significance becomes clearer with further study, but for the time being, the implied author may be used to express a degree of certainty no longer shared by the authors themselves.

This controlling of scientific and technical evidence is partly what Stephen Brush has in mind when he writes in *Science*: 

that the teacher who wants to indoctrinate his students in the traditional role of the scientist as a neutral fact finder should not use historical materials of the kind now being prepared by historians of science; they will not serve his purposes.  

For the purpose of this paper, these examples also serve to illustrate the point that many of the changes an author undergoes as he transmits his evidence are changes imposed by the transmittal process itself; that the differentiation between implied author and author is intrinsic to the differences between the text and the context. The shift is a rhetorical and ultimately linguistic one, as well as an ideological or scientific one. And its occurrence need not invalidate the evidence being transmitted. This is an essential argument in a paper entitled "How Not to Theorize about Technical Discourse: The Lesson of Literary Theory" by Marthalee and Ben Barton: "appreciation of the conventional nature of technical discourses, the post-positivist realization that technical discourses are systems of humanly created conventions, does not necessitate abandoning a truth claim." Indeed, what I am arguing is that the conventions—rhetorical and linguistic—practiced by the implied author—overtly or subtly—are intended to sustain the truth claims of the author, to make us forget that what we are reading is only, in Carolyn Miller's words, "a persuasive version of experience" rather than "the revelation of absolute reality." The difference between a technical and literary text is not that one is any less artificial than
the other, but that the technical text must appear to be so. To see how the implied author can serve to objectify a text, we need to look at how this presence operates on a linguistic level.

Until now, this paper has used the terms text and discourse interchangeably, following Kinneavy's definition that discourse means "the full text, oral and written, delivered at a special time and place or delivered at several instances." It is now time to limit, for the purpose of exposing the implied author, the meaning of text to a complete, however brief, written document, and to broaden the meaning of discourse to include not only the text but the one(s) who sends the message contained in the text and the one(s) for whom the message is intended. This extended definition emphasizes the dialogic quality in discourse and allows us to consider the whole communication process when analyzing individual discourse features. Such a reading of the term calls attention to the dynamic character of information transfer, which, according to one scientist, "is not complete until a relevant part of the content of one person's brain cells becomes the property of another's brain cells."

The model of the communication process developed by Roman Jakobson for his classic "Closing Statement: Linguistics and Poetics" lends itself well to this expanded definition of discourse, for Jakobson was interested in showing the variety of functions language performs within messages and how these functions correlate to the factors constituting verbal communication. He presents this concise summary:

The ADDRESSER sends a MESSAGE to the ADDRESSEE. To be operative the message requires a CONTEXT referred to ("referent" in another, somewhat ambiguous, nomenclature), seizable by the addressee, and either verbal or capable of being verbalized; a CODE fully, or at least partially, common to the addressee and addressee (or in other words, to the encoder and decoder of the message); and, finally a CONTACT, a physical channel and psychological connection between the addresser and the addressee, enabling both of them to enter and stay in communication.

Jakobson arranges these factors in the following schema:
While each factor determines a particular basic aspect of language, verbal messages almost always fulfill more than one function. "The diversity," Jakobson believes, "lies not in a monopoly of some one of these several functions, but in a different hierarchical order of functions." Briefly, these functions are a) the emotive or expressive which defines the relations between the addressee and the message, b) the conative which defines the relations between the addressee and the message, c) the referential which defines the relations between the message and the object to which it refers, d) the poetic or aesthetic which is defined by the relation between the message and itself, e) the phatic which affirms, maintains, or breaks communication, and f) the metalinguual which provides a glossing function on the code. Thus the counterpart schema of language functions looks like this:

# Referential
- EMOTIVE
- POETIC
- CONATIVE

# Phatic
- METALINGUAL

The dominance of any one of these functions determines the character of a text: a purely conative function would produce an incantation or command; a purely emotive would be a cry or a laugh; a purely poetic would sacrifice syntactical meaning for aesthetic effect. These are extremes, of course, but so is a technical text employing only referential language. Individual sentences, even paragraphs, can be found easily which achieve near purity. The following comes from a NASA report:

Preliminary polarization measurements indicate that the polarized component of the earthlight varies as a function of cloud cover and the changing patterns of oceans and continents during rota-
Specular polarization appears to occur over an area of about $2 \times 10^6 \text{ km}^2$ in the approximate geometric center of the earth's illuminated crescent. The degree of polarization of earthlight from the specular reflection area varied from 26 to 30% over clear parts of the continents, and 4 to 8% over clouds. Thus, the cloud distribution over the area of specular reflection has a strong effect on the degree of polarization.\textsuperscript{14}

The passage manages to appear self-writ, as if the author H. E. Holt had abdicated control in favor of the extralinguistic reality. Rhetorically, however, we can say that the implied author has allowed Holt to remove himself from that reality as it becomes encoded in the message; to substitute an abstract intelligence that can deduce the meaning of "preliminary polarization measurements," and detect occurrences of "specular polarization." In other words, the subjective aspect of the context is suppressed through the referentially dominant language of the text. The only acknowledgment of the presence of code is the metalingual "Thus." Yet by its use, the implied author refocuses the language onto the code, and by inference, onto the addressee who share the code and a mutual interest in the encoded reality (Jakobson's message). In this way, the implied author establishes the text as a basis of contact for the author and reader, and thereby makes discourse possible.

One can detect this suppression of the subjective in a number of syntactical strategies employed by an implied author. Note the following way the implied author represents the author, in this case a Peter Andow, of an article in *The Chemical Engineer*:

In this paper the role of the control computer in process safety is examined;

and later

It appears to the author that design practices, if applied correctly, are sufficiently mature...\textsuperscript{15}

In the first passage, the passive verb construction shifts the focus off the author by relegating him to a by-agent role, and even then he is removed from the syntax. The implied author takes over as a mediator between the message and its encoder, a position more obvious in the second example where the author is allowed to surface syntactically but only as a third person who does not detract from the context, the design practices. The refer-
ential function remains intact in a way it would not if the author had taken a first-person role, i.e., "It appears to me that design practices . . .," or, even more subjectively dominant, "I believe design practices. . . ." In both formations, the implied author shifts the linguistic hierarchy in favor of the subjective, the emotive function, and lessens the objective quality of the text.

In a Harvard study on the impact of empathy (speaker identification) on syntax, Susumu Kuno formulates two principles which give insight into the foregoing analysis:

1) A single sentence cannot contain two or more conflicting foci of the speaker's empathy;
2) It is easiest for the speaker to empathize with the referent of the subject; it is next easiest for the speaker to empathize with the referent of the object; . . . [sic] It is next to impossible for the speaker to empathize with the referent of the by-agentive.16

Thus, Kuno finds that the sentence "Mary was hit by me" violates the first principle and upsets the second principle's logic. Such a sentence is allowable, he concludes, only in a contrastive context or in a context in which the speaker is allowed to take a detached view of the action he has taken. This latter exception becomes more the rule in technical discourse, one made possible as well as practiced by the implied author. For by using what Kuno calls Surface Structure Empathy Hierarchy (the second principle), the implied author can both include the author in a sentence and keep the focus on a subject different from the author. The implied author is not inseparable from the author; it only seems so in those instances when it gives the author a subject role. With the author in an object or by-agent role, as in the sentence "The study conducted by the author . . .," the difference between the implied author (Kuno's speaker) and the author becomes distinct.

This ability of the implied author to carry the message about the referent without calling undue attention to itself serves authors and readers of technical discourse equally well. Without such a rhetorical voice, authors would have no filter, no selective device to shape the language in a text for a reader. They would be hopelessly ensnared in their own subjectivity, unable to free themselves from the context, and, more impor-
tantly, free the context for the reader. The implied author can thus resolve the essential dichotomy between subjective experience and the objective reality without requiring the reader to question the validity of either. By this resolution, the implied author also serves the truth of technical discourse.

University of Washington
Seattle, Washington

Notes

7 For a fuller discussion of the thesis that "Science is, through and through, a rhetorical endeavor," see Carolyn R. Miller, "A Humanistic Rationale for Technical Writing," College English, 40, No. 6 (Feb. 1979), 616 et passim.
9 Miller, p. 616.
11 Elizabeth Harris makes the observation that "there is a sense in which all scientific and all highly conventionalized discourse—which includes much technological writing—are dialogic." See "In Defense of the Liberal-Arts Approach to Technical Writing," College English, 44, No. 6 (Oct., 1982), 634.


