

The authors explore the parallels to be found by comparing descriptions of the technical communicator with differing views of the communication process—the transmission, translation, and articulation views of communication. In each of these views, the place of the technical communicator and of technical discourse shifts with respect to the production of meaning and relations of power. The authors argue from the standpoint of the articulation view for a new conception of the technical communicator as author and of technical communication as a discourse that produces an author.

The Technical Communicator as Author Meaning, Power, Authority

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In his essay, "What Is an Author," Michel Foucault observes that

in our culture, the name of an author is a variable that accompanies only certain texts to the exclusion of others: a private letter may have a signatory, but it does not have an author; a contract can have an underwriter, but it does not have an author; and, similarly, an anonymous poster attached to a wall may have a writer, but he cannot be an author. (124)

From this, Foucault concludes that "the function of an author is to characterize the existence, circulation, and operation of certain discourses within a society" (124). At its most mundane, this is simply to note the fact that certain discourses are granted the privilege of authorship while others are denied this privilege. It is more remarkable to notice, with Foucault, that this very fact suggests an inversion of the way in which we typically understand the relation between an author and a discourse: Rather than authors producing certain discourses, certain discourses are understood to produce authors. To grant authorship to a discourse is to grant that discourse a certain authority. In a peculiar turn of events, this authority comes to reside

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in the author, the author produced by the discourse itself. Thus it becomes evident that authorship is a manner of valorizing certain discourses over against others. As such, authorship empowers certain individuals while at the same time renders transparent the contributions of others.

The discourses created by technical communicators have not been considered authored discourses; the technical communicator may be a transmitter of messages or a translator of meanings, but he or she is not—or at least not until now—considered to be an author. We have come to see that technical communicators, as well as other professional communicators, are engaged in the process of what Marilyn Cooper has called *participatory communication*. In “Model(s) for Educating Professional Communicators,” Cooper writes:

I am defining communication as participatory communication and the role of . . . communicators as one of . . . working together to create common interests, to construct the ideals of our society, [and in light of these ideals] to examine the ends of [our] action. Professionals who communicate should be involved in this endeavor too. . . . It is [at least part] of the function of professional communicators—whether they know it or not. (12)

THE RELEVANCE OF COMMUNICATION THEORY

There are striking parallels to be found by comparing descriptions of the technical communicator (descriptions and redesigns of the role, task, and ethos of that communicator) with the progressive development of our theoretical understanding of the communication process itself. The most remarkable of these parallels may well lie in the emerging evidence of a symmetry between disparate images of the technical communicator and distinct—although ultimately inter-related—models of communication. What we propose is that, by comparing different images of the technical communicator with parallel developments in the study of communication, a new theoretical and practical image of that communicator—the technical communicator as author—can begin to be established. Reflecting on the historical development of communication theory over the course of the past 10 years, scholars in communication have come to acknowledge that, at least with respect to the study of mass communication, two basic models of communication have gained ascendancy and, although this is less widely acknowledged, that a third is now gaining ground (see,

for example, Fiske, *Introduction*; Carey). For our purposes, it is more useful to speak of these models not as models per se but as distinct views of communication. This is the case because, at bottom, each of these models seeks to express the morphology common to a collection of theories that otherwise appear more or less disparate. In this regard, the term *model* is misleading. It appears to set one theory of communication over against other such theories rather than gathering a number of specific theories together in a general conceptual classification. We have no interest in a general conceptual classification. We have no interest here in pitting one theory of communication against another. We are concerned with what these views, together, can teach us about the place of the technical communicator.

The first of these views—what we will refer to as the transmission view of communication—can be delimited in terms of a concern, for the most part, with the possibilities and problems involved in message transmission, that is, in conveying meaning from one point to another. The second—what we will call the translation view of communication—can be understood in terms of a primary concern with the constitution of meaning in the interpretation and reinterpretation of messages. The third—what we will call the articulation view of communication—can be grasped as a concern principally with the ongoing struggle to articulate and rearticulate meaning. With respect to each of these views of communication, the place of the technical communicator is located differently. In the first, the transmission view of communication, the technical communicator is a purveyor of meanings; in the second, the translation view of communication, the technical communicator is a mediator of meanings; in the third, the articulation view of communication, the technical communicator is an author who among others participates in articulating and rearticulating meanings.

Corresponding to variations in the place of the technical communicator as purveyor, mediator, or articulator of meanings, the place of the technical communicator—and of technical discourse itself—shifts in different relations of power. In the transmission view, the technical communicator remains the neutral vehicle facilitating the exercise of power. In the translation view, the technical communicator works to create symmetry within the negotiation of differential relations of power between sender and receiver. In the articulation view, the technical communicator is complicit in an ongoing articulation and rearticulation of relations of power. Ultimately, looking through the lens of articulation—as we do in this article—the different locations

of the technical communicator implicate one another. That is, the technical communicator and technical discourse purvey, mediate, and articulate meaning. Likewise, the technical communicator and technical discourse facilitate, sustain, generate, and disrupt relations of power. But only by looking through the lens of articulation can we rearticulate the technical communicator and technical discourse as participating fully in the articulation of meaning and thereby fully empower the discourse as authorial.

CHANGING CONCEPTIONS OF MEANING AND POWER: TRANSMISSION

Of the three views of communication, the transmission view has been the most clearly delineated. It has been extensively critiqued and often maligned such that it is nearly requisite to begin any introductory text on communication theory with an explanation and rejection of it. For the most part, contemporary communication theories are proposed in contradistinction to it. There are, consequently, many different versions of the position and ongoing disagreements about its precise historical and theoretical contours (see, for example, "Ferment in the Field"). In general, however, the transmission view combines three defining characteristics:

1. the conception of communication as the transportation of messages
2. the conception of the message—the meaning encoded by a sender and decoded by a receiver—as a measurable entity transmitted from one point to another by means of a clearly delineated channel
3. the conception of power as the power of the sender to effect, by means of this message, a desired mental and/or behavioral change in the receiver. This power is the power of the sender over the receiver.

The term communication has its origins in the concept of transportation (Williams; *Oxford English Dictionary [OED]*). Communications were the paths of transportation by means of which people at the centers of power could exercise control over those in the peripheries. The ability to move messages in a timely fashion across space by means of such communications was a necessary condition for political, economic, and religious domination. The emphasis in the historical development of new technologies of communication (from walkers, runners, horses, smoke signals, semaphore, print, telegraph, telephone, television, satellites, computers, fax machines, etc.) has

been the transmission of knowledge and information in such a way as to *exercise control over space and people faster and farther*.

The implications for how meaning has been understood in communication theory are made clear by examining how communication as transportation gets tied to a theory of transmission. The work of Shannon and Weaver can be credited as a principal determinant in the shaping of such a view. Largely mathematical in character, Shannon and Weaver's conception of communication is as an explicitly linear form: The sender wishes to transmit meaning, but to do so it must be encoded in the form of a message (Shannon and Weaver called this *information*). The message is sent over a channel to a receiver who then decodes it to get out of it the meaning that was encoded. The process, when perfectly executed, results in the receiver's decoding exactly the same message that the sender intended to encode.

This basic model has been amended and elaborated on extensively (see, for example, Fiske, *Introduction*; McQuail and Windahl), but its orientation to meaning remains essentially the same. Meaning is something that is "packaged up" by the sender, shipped out, and "unwrapped" by the receiver, who can then act or think accordingly. Of course, there are numerous points in the process where difficulties can render the transmission less than perfect. The sender may encode the message poorly such that the message fails to contain the intended meaning. The decoder may decode poorly, not reading the intended meaning properly. There may also be "noise" in the channel that distorts the message so that, consequently, the meaning it contains is not received in the form in which it was sent. (Noise may take many forms, from static on the telephone line to the wandering mind of the listener during the transmission.)

In the transmission view of communication, meaning is a fixed entity; it moves in space "whole cloth" from origin to destination. Communication is successful when the meaning intended by the sender is received accurately, where accuracy is measured by comparing the desired response to the message with the actual response. Communication fails when these responses diverge. In the case of failure, the communicator must locate and correct the source of the failure in the process of encoding or in the noise of the transmission. Power is simply that which is exercised when the communication is successful. The sender has power when the receiver behaves in the intended manner. Power, like meaning, is something that can be possessed and measured; its measure is to be found in the response of the receiver.

Such a view of communication appears to dominate the early stages of the theory and practice of technical communication as it emerged within the college curricula of engineering schools. Based on research done by Robert J. Connors, we would characterize this phase in technical communication as dominating the field from the late 1800s until the 1950s but persisting into the present. In this phase, technical writing and engineering writing are treated as synonymous, and the task of the technical writing course is to teach engineers or their surrogates to encode the engineers' ideas (meanings) accurately and to provide a clear channel for transmission.

Technical writing courses developed this way in response to a series of changes in the practice of engineering and the development of the engineering curriculum. As engineering and its curriculum became more technically specialized and less humanistic during the period of rapid industrialization that followed the Civil War, complaints about the unbalanced education of students in technical schools mounted. Among other deficiencies, engineers, it was claimed, "couldn't write." To correct this imbalance, courses in engineering English (later technical writing; later still, technical communication) were developed. As Connors points out, by this time the notion of the "two cultures" split was so firmly in place that, as we would put it, the kind of meanings that required encoding were sufficiently different to warrant a completely different kind of English course (331). Engineering English courses were designed, among other things, to teach students to encode the special meanings of engineers.

Education in this phase has two components: the education of engineers and the education of surrogate engineers. Both are firmly anchored in a transmission view. The earliest, but again still persistent, effort to inculcate the skill of technical writing is to teach the engineer—as sender—to be a better encoder through the use of proper language, grammar, and style. Through such training, the intent is that engineers will learn to encode messages such that they will match their intentions. Further, in teaching engineers to transmit those properly coded messages using the proper forms, the intent is to ensure that the proper channels are chosen and that the transmission is sent with minimal noise. In James Souther's review of the evolution of technical writing course content, he demonstrates that the first kinds of courses to develop were those focusing on the "effective use of language, grammar, and style" (3), later focusing on teaching the different forms, reports, and letters routinely used in the engineering profession.

Developing later, and rapidly growing alongside the engineer writer, the surrogate engineer—the technical writer—has become at least as important in the horizons of technical communication. The conjuncture of the increased demands placed on highly specialized engineers and the growing awareness of the complexity and difficulty of encoding their ideas (meanings), gives shape to the development of technical writing as a discipline in its own right (Connors places this in the 1920s). Course work and textbooks began appearing that were directed toward the technical writing student in particular rather than toward the engineer. In spite of this specialization, the technical writer is assumed to be a mere surrogate, or stand-in, for the actual (but busy) sender, the engineer.

The technical writer's job in this period dominated by the transmission view of communication is to assure that messages are accurately encoded and that they are transmitted with minimal noise over clear channels. In fact, the professional technical writer, as surrogate engineer, is rendered essentially transparent in the process, ideally *becoming* the clear channel itself. The very definition of technical writing often affirms this commitment to the transparency of the communicator-as-channel. This is often explicit, as Michael Markel writes as recently as 1988:

Technical writing is meant to fulfill a mission: to convey information to a particular audience or to affect that audience's attitudes in a particular way. To accomplish these goals, a document must be clear, accurate, complete, and easy to access. It must be economical and correct. The writer must be invisible. The only evidence of his or her hard work is a document that works—without the writer's being there to explain. (6)

It is relatively easy to understand the location of meaning and the conception of power as they operate in this phase. Meaning is posited to be in the intentions of the sender, that is, the engineers. Meaning is simply transferred over a clear channel. Technical writers are not seen as adding or contributing to meaning. In fact, if they are, they are not doing their job! After all, they are not engineers themselves; nor are they the source of the meaning to be transmitted. Nor does meaning originate in any sense in the receiver.

Because meaning resides only in the sender's intentions, and the technical writer is merely a surrogate encoder, when communication is successful (i.e., the intended response achieved), the recognition, responsibility, and power is attributed only to the sender. However, if communication fails, it is exceedingly easy to fault the encoding process, that is, the work of the technical writer. *Miscommunication*, as

this failure is called, can be attributed to the weak use of language (inadequate encoding), failure to include appropriate information (inadequate encoding), or poor standards for documentation (noisy channel) (see, for example, Kostur and Hall).

Power, then, must be understood as possessed by the sender and measured by the ability of the message to achieve the desired result in the receiver. To communicate is to exercise power. The sender has no power if the receiver does not respond appropriately. Miscommunication, the principal measure of failure in this phase, occurs when there “is disparity between the message intended and the message received” (Kostur and Hall 19). Technical writers, who are rendered transparent and seen as contributing no meaning, possess no power (and therefore cannot exercise it) whenever communication is deemed successful. To be transparent is, after all, to provide a clear channel for the sender to exercise his or her power. Interestingly, however, if a message fails, technical writers can always be held responsible and called on to do a better job at encoding or transmission. They possess, then, a kind of negative power—by virtue of their potential status as “inadequate surrogates”—to manage the processes of encoding and transmission poorly and take the responsibility for miscommunication.

The persistence of thinking in these terms is evident in much of the professional and educational realities of technical communicators. The extent that their education focuses on stylistics, the proper use of forms, and skill at operating the technologies of communication—to the detriment of the kinds of knowledge and skills we introduce later—is testament to that persistence. Technical communicators are taught, for example, that the highest goal they can achieve is “clarity and brevity,” which suggests a transparency that belies what they really do. On the job, the role of surrogate encoder is attested to by the extent that the communicator is treated as low in the organizational hierarchy, as working *for* the real sender, and as expert mainly in questions of style, form, editing, and media management. To transmit the sender’s meaning as a perfectly executed message is the role of this communicator.

CHANGING CONCEPTIONS OF MEANING AND POWER: TRANSLATION

The second of the views specified at the outset, the translation view of communication, a view characterized by a fundamental concern

over the constitution of meaning in messages in which power is negotiated between sender and receiver, has not been as clearly delineated as the transmission view. There are numerous contenders in the struggle to define the view developed in contradistinction to the transmission view of communication, and the successor has not yet been fully agreed on. There are in our reading several characteristics that the approaches to the second view seem to share

1. the conception of communication as a practice
2. the conception of meaning as produced through the interaction of sender and receiver
3. the conception of power as *negotiated*.

If you look back at our discussion of the transmission view of communication, you will note a conspicuous absence: The receiver in the process of communication is absent in any way other than as passive recipient of the communicated or miscommunicated message. Receivers add no meaning; they have no power. Reception is considered to be essentially unproblematic. If the message is encoded properly and sent over a clear channel, it should have the desired impact on the receiver. In contrast to this view, theorists of the translation view consider the activity of the receiver to be just as constitutive of the communication process as that of the sender. Communication is not a linear process that proceeds from sender to receiver, but a process of negotiation in which sender and receiver both contribute—from their different locations in the circuit of communication—to the construction of meaning. The nature of this process of negotiation can be understood by illustrating its operation in Stuart Hall's elaboration of what he has called a theory of "encoding and decoding."

Hall describes communication as a practice in which sender, message, and receiver are but "different moments" in a "complex structure of relations." Communication is "a structure produced and sustained through the articulation of linked but distinctive moments—production, circulation, distribution/consumption, reproduction" ("Encoding" 128). Each moment has its own distinctiveness and modality and contributes to the circulation that constitutes the communication. Hall describes it this way:

The process . . . requires, at the production end, its material instruments—its "means"—as well as its own sets of social (production) relations—the organization and combination of practices within media appara-

tuses. But it is in the *discursive* form that the circulation of the product takes place, as well as its distribution to different audiences. Once accomplished, the discourse must then be translated—transformed, again—into social practices if the circuit is to be both completed and effective. If no “meaning” is taken, there can be no “consumption.” If the meaning is not articulated in practice, it has no effect. (“Encoding” 128)

The acts of encoding and decoding are thus both active processes in the circuit of meaning production. The sender encodes meaning (meaning 1) based on the frameworks of knowledge, relations of production, and technical infrastructure within which the sender operates. A *meaningful* product is produced (a technical report, for example). But the receiver also actively decodes a meaning (meaning 2) based on potentially *different* frameworks of knowledge, relations of production, and technical infrastructure. There is no necessary correspondence (or symmetry) between meaning 1 and meaning 2, because each operates semiautonomously. It is as though the practices of encoding and decoding are practices of *translation*, from social practices to discourse and then back into social practices.

When there is symmetry between the translation processes, we can talk about equivalence between the two moments—a way of rethinking the concept of *understanding*. And when there is a lack of symmetry, we can talk about a lack of equivalence—a way of rethinking the concept of *misunderstanding*. Misunderstanding cannot be explained fully by inadequate skill at encoding or by the presence of noise in the channel. Any asymmetry can also be understood as an outcome of alternative practices of encoding and decoding (Morley).

Some translation approaches continue to use a concept such as misunderstanding because they persist in privileging the encoding process. Hall, for example, posits the encoded meaning (meaning 1) as the “dominant or preferred meaning” (“Encoding” 134). Then in comparing the symmetry between the preferred, encoded meaning and various decoded meanings, decodings are determined to be within the dominant, or preferred, code (dominant decoding); against it (oppositional decoding); wildly unrelated to it (aberrant decoding); or in a negotiated relationship to it (negotiated decoding) (Morley).

Some translation approaches have sought to dispense with the privileging of encoded meanings and render both moments as more *equally* constitutive. These approaches, such as that of John Fiske (*Television*), use conceptions of an “open text,” conceptions such as polysemy and Bakhtin’s heteroglossia. Heteroglossia asserts that “all utterances . . . are functions of a matrix of forces practically impossible

to recoup" (qtd. in Fiske, *Television* 89). Polysemy asserts that a text is not merely a bearer of meanings. Rather, a text identifies and limits "an arena within which the meanings can be found. . . . [W]ithin those terms there is considerable space for the negotiation of meaning" (84). The more open a text, the greater the range within which receivers are free to make their own meanings.

Meanings are thus located in several places: in the practice of encoding, in the discursive product, and in the practice of decoding. In the passage of these forms, "no one moment can fully guarantee the next moment" (Hall, "Encoding" 129). Meaning is fluid and elusive, never really fixed at any moment.

Power is displaced and fluid along with meaning. There is power in the practice of making meaning. Because both encoders and decoders generate meaning, both exercise power. This is no longer simply the power of sender over receiver but the differential power of each to bring their own context to bear in the making of meaning (Fiske, *Television*).

Despite the fluidity of meaning, the translation view deals uneasily with differential relations of power. The receiver can work with the product (or text) only as it has been encoded, and that limits the openness of the text. This situation still privileges the practice of encoding. As Hall puts it,

Polysemy must not, however, be confused with pluralism. Connotative codes are *not* equal among themselves. Any society / culture tends, with varying degrees of closure, to impose its classifications of the social and cultural and political world. These constitute a *dominant cultural order*, though it is neither univocal nor uncontested. This question of the "structure of discourses in dominance" is a crucial point. The different areas of social life appear to be mapped out into discursive domains, hierarchically organized into *dominant or preferred meanings*. ("Encoding" 134)

These dominant, or preferred, meanings must *work* to exercise power—to bring decodings into symmetry with the encodings. But decoders—always active in the decoding process—variously exercise their power to disrupt the circulation of power by decoding differently and articulating meanings differently into practice. Communication is thus *an ongoing struggle for power*, unevenly balanced toward encoding.

Currently, the field of technical communication seems to be struggling with (sometimes against) the implications for the role of the technical communicator as translator. The most obvious marker of

this shift is that the technical *writer* becomes the technical *communicator* with the recognition that communicators have something to add beyond skillful encoding and clear channel. But there is much more than a name change here. To be expert in the practice of communication, to be a *communicator* in the process, signifies changes in understanding the power of the receiver as well as of the technical communicator—changes that open a virtual Pandora's box that can never again be closed.

There are a number of new things to attend to now (sometimes old things in new ways): (a) Because the process of encoding is always a process of trying to fix already slippery meanings, it is important for the communicator to understand the context of the sender. Hence familiarity with the technical field of the sender will work to ensure that in the translation process, the preferred meanings are the ones that get fixed. (b) Because the process of encoding is always an imperfect translation, it is important for the communicator to become expert at understanding and manipulating language as polysemic. Hence familiarity with the principles of rhetoric and composition and skill at using their tools will work to ensure that the communicator will know how to fix meanings. (c) Because the receivers of technical communications have the power to decode differently depending on the contexts within which they operate, the communicator must understand how those audiences decode. Hence rhetoric (as the art of persuasion), composition, audience analysis, and reader-response research will help to ensure that communicators know how to encode such that particular audiences are most likely to decode symmetrically. (d) Further, once it is recognized that there is always a struggle to fix otherwise slippery meanings, the communicator must acknowledge and work with the differential relations of power within which sender and receiver operate. Hence attention to power and ethics is essential.

These concerns all become well represented in the field of technical communication from the 1950s on, although attention to power and ethics seems least represented, for reasons discussed later. The evidence of these changing priorities can be seen in the growing recognition of the unique contribution that can be offered by technical communicators as experts rather than as surrogates. This recognition is self-reflexive, which may account for the developing professionalization of technical communication. Evidence can also be seen in the changing textbooks and instruction in technical communication (Connors; Souther). Although stylistics, grammar, editing, and the use

of media still play a major part in the education of technical communicators, it has also become essential to add to their educational repertoire work in rhetoric and composition, linguistics, problem solving, audience analysis, and ethics.

There are still employers, educators, and students whose understanding of communication is linked to the thinking of the first, or transmission, view. They have difficulty understanding the role of all this theory in just getting the job done (see, for example, Vaughan 80). But what they fail to understand is that to execute the job with sophistication—to work toward the negotiation of symmetry between encoder and decoder—the theory must be brought to bear on the practice of communication. That requires attention to the complex and variable contexts within which senders and receivers produce meanings and how those contexts connect in the circuits of meaning and power.

Technical communication education is still in the process of sorting out those connections, establishing the balance between theory and practice. Becoming well established is the need to *go on theorizing*, to recognize that technical communication is not simply a skill but an academic and practical discipline that requires us to push the boundaries of theory if we are to understand what works and why.

But there is more to say about meaning, power, and ethics. The promise (for some the pestilence) released from the Pandora's box of the translation view of communication is the power of the technical communicator as translator. Given the fluidity of meaning and the polysemy of any text, a translator can never be transparent. Lawrence Grossberg describes the position of the translator in this view: "Translation involves the retrieval and reconstitution of two different traditions, of two different sets of possibilities and closures. It always involves us in compromise, not only of the text's language, but of the translator's as well" ("Language" 221). The technical communicator, by virtue of the nature of the language, then, *must* add, subtract, select, and change meaning. This ushers in the recognition that the communicator, too, exercises power, that is, the communicator—operating from within a different context—makes meaning too. That recognition requires attention to ethics grounded in an understanding of how power works.

There seems to be a subtle recognition in the field that the communicator has power, but coming to terms with the nature of that power gets lost in the demarcation of encoding and decoding, of sender and

audience, as the principal sites of investigation. Most educators acknowledge that it would be a good idea for students to understand politics, power, and ethics, but there is very little explanation offered to suggest what they might do with that knowledge on the job. But one thing is certain: A technical communicator cannot be just a technical writer anymore. What, then, do technical communicators offer? We think there are some answers suggested if we look ahead through the lens of ongoing theorizing in communication.

CHANGING CONCEPTIONS OF MEANING AND POWER: ARTICULATION

The third of the views specified at the outset, the articulation view of communication, a view characterized by concerns with the struggle to articulate and rearticulate meaning and relations of power, can be delineated in contrast to both the transmission and the translation views. The transmission view acknowledges that senders do have meanings that they desire to encode and that they do often desire a particular response to that message from the receiver. However, the transmission view limits our recognition of the full fluidity of meaning. The translation view reconstitutes transmission to add an understanding of the receiver's contribution to the constitution of meaning and introduces the constitutive role of a mediator. However, translation based on the model of encoding and decoding limits our understanding of the full authorial contribution and power of the mediator.

The translation view opens the space for the attribution of authorial power (the Pandora's box) but leaves it undertheorized. The opening is evident in Grossberg's assertion (cited previously) that the language of the translator must be taken into consideration. The way through that opening is provided in the very language of encoding and decoding, specifically in thinking through Hall's suggestion that meaning is "articulated in practice" and that meaning and discourse are "transformed . . . into social practices . . . if the circuit [of meaning] is to be both completed and effective" ("Encoding" 128). The articulation view allows us to move beyond a conception of communication as the polar contributions of sender and receiver to a conception of an ongoing process of articulation constituted in (and constituting) the relations of meaning and power operating in the entire context within which messages move. That context includes not just the context of

the sender and receiver (the frameworks of knowledge, relations of production, and technical infrastructure) but of the mediator(s) as well. And *mediator* here can no longer be thought of as just the technical communicator but as the channels (including media and technologies) of transmission as well.

Articulation is a concept that has been drawn from the work of Antonio Gramsci, considered by Ernesto Laclau, influenced by structuralism (especially Althusser) and postmodernism (see, for example, Deleuze and Guattari), and developed into an identifiable theoretical position by Hall ("On Postmodernism"; "Race"; "Signification"). Grossberg has elaborated on the role of power in this position ("Critical Theory"). Articulation asserts that any identity in the social formation must be understood as the nonnecessary connection between the elements that constitute it. Each identity is actually a particular connection of elements that, like a string of connotations, works to forge an identity that can and does change (Hall, "Signification"). An identity might be a subject, a social practice, an ideological position, a discursive statement, or a social group. The elements that constitute these identities are themselves identities; therefore, they too must be understood as nonnecessary, changing connections between other elements. The way in which elements connect or combine is described as an articulation. As Jennifer Daryl Slack has described, articulations, the connections between elements that forge identities, have the following characteristics:

- (a) Connections among the elements are specific, particular, and non-necessary—they are forged and broken in particular concrete circumstances; (b) articulations vary in their tenacity; (c) articulations vary in their relative power within different social configurations; and (d) different articulations empower different possibilities and practices. (331)

Any identity might be compared to a train, which is constituted of many different types of train cars in a particular arrangement (or articulation). Each car is connected (or articulated) to another in a specific way that, taken as a whole (as a series of articulations), constitutes the identity *train*. Any specific train is thus a specific, particular set of articulations—an identifiable object with relatively clear-cut boundaries. But these specific articulations are nonnecessary; that is, there is no absolute necessity that they be connected in just that way and no guarantees that they will remain connected that way. So, for

example, we could disconnect (disarticulate) and reconnect (rearticulate) cars in a different order to constitute a new identity *train*.

To say that articulations vary in their tenacity is to acknowledge that some connections are more difficult to disarticulate/rearticulate than others. Yard police, for example, may or may not let us in to change the order of the cars. Or the kinds of connections between the cars may be variously difficult to manipulate.

Some articulations are more resistant to rearticulation than others; that is, some are more *tenacious* than others. When a connection between elements is particularly resistant, the identity *train* remains intact and effective over a long period. When an articulation is effective, it is said to be powerful in that it delineates what is real and possible from what is not. Different arrangements make possible different possibilities and practices. If we disarticulate the engine, for example, the rest of the train will not move. And, in the process, we may have rearticulated the elements in such a way as to necessitate a new identity. Is a string of cars without an engine a train? Is a single engine a train? We take the answers to both to be maybe. On the other hand, a disarticulated car of the type that usually completes a train will probably not be thought of as constituting the identity *train*. The term "caboose" might have to suffice. But a train without a caboose is usually still thought to be a train.

Articulation thus points to the fact that any identity is culturally agreed on or, more accurately, struggled over in ongoing processes of disarticulation and rearticulation. For example, clearly, one element of what makes a train a train (and not, say, just a caboose) depends on our agreed-on cultural conception of *train*. To stretch this a bit, we could say that we have an ideology regarding what we empower as a train. The ideology of *train* articulates to the arrangement of the cars such that we may call a lone engine a train but not a lone caboose. But that ideology is itself an identity constituted by its articulations, one of which is the past practices of putting trains together. Given changes in those practices, say, for example, giving cabooses their own little engines to get around, we may rearticulate our ideology of *train* such that lone cabooses are more like lone engines and deserve, perhaps, the status, *train*. Alternatively, we may alter the identity *train* by working to rearticulate it on ideological grounds alone. We may, as teachers, for example, decide to teach people a different definition (identity) of *train* so that a lone engine or a lone caboose is rearticu-

lated as constituting the identity. The success of our attempts at rearticulating identities, whether purposeful or not, depends on the tenacity of the various articulations that constitute it at any particular conjuncture.

To extend this now beyond more easily identifiable identities, social practices, ideological positions, discursive statements, social groups, and so on are also articulated identities whose meanings are continually and variously rearticulated. Dictionaries define the most widely accepted (or acceptable) identities, but there are frequently different, alternative articulations that are either archaic or emerging. One need only read a bit of the *OED* to begin to get a feel for how dramatically articulations can change (although the *OED* only hints at the range of connections that constitute the articulations). Raymond Williams's *Keywords* tracks changing articulations of key identities in Western thought and provides excellent cases of rearticulation.

The concepts of meaning and power are dramatically refigured in articulation theory. Meanings cannot be entities neatly wrapped up and transmitted from sender to receiver, nor can they be two separate moments (meaning 1 contributed by the sender and meaning 2 contributed by the receiver) abstractly negotiated in some sort of a circuit. Like any identity, meaning—both instances and the general concept—can be understood as an articulation that moves through ongoing processes of rearticulation. From sender through channels and receivers, each individual, each technology, each medium *contributes* in the ongoing process of articulating and rearticulating meaning. Power is no longer understood as simply the power of a sender over a receiver or as the negotiated symmetry of the sender's or receiver's meanings but as that which draws and redraws the lines of articulation. As Grossberg has put it, power "organizes the multiplicity of concrete practices and effects into predefined identities, unities, hierarchical categories, and apparently necessary relationships" ("Critical" 92). Power is thus what works to *fix meanings*, that which empowers some possibilities and disempowers others. Grossberg explains that empowerment is "the enablement of particular practices, that is, as the conditions of possibility that enable a particular practice or statement to exist in a specific social context and that enable people to live their lives in different ways" (95).

We can expand our understanding of the role of the technical communicator and of technical discourse significantly by tracking the implications of an articulation view of communication. First, by using the lens of articulation theory, we have here been able to track the

changes in the theory and practice of technical communication as themselves rearticulations of elements (or identities) such as technical communicator, meaning, author, channel, sender, power, receiver, and so on. Second, however, that very lens works to rearticulate the location of the technical communicator in the process of communication, specifically in that technical communicators must now be understood as articulating and rearticulating meaning in (and variously contributing to or changing) relations of power. To gain access to those rearticulations, we will again consider the question of authorship as raised by Foucault at the beginning of this article.

It is tempting here to begin to lay out all of the elements that articulate to the notion of *author* as it moves through the stages of transmission, translation, and finally to articulation itself. These articulations would include elements such as the conception of authors as individuals, individuals as the source of meanings, the conception of meaning as a fixed entity—the practice of attributing ownership to ideas, capitalist relations of property and appropriation, a notion of the power of ideas, and a particular conception of progress (“if it’s new, it’s better”). However interesting that task might be, we must limit our treatment here to some very specific articulations that direct our attention to the questions of meaning and power in the theory and practice of technical communicators.

In the transmission view of technical communication, authority is articulated to scientific and technical discourse as an objective and neutral reporting of facts. Humanities types may author meaning, but scientists, engineers, and, by extension, technical writers, merely (albeit skillfully) re-present what is already objectively “out there.” These are not meanings, but objective, disembodied facts. Consequently, technical communications (like the posters or contracts mentioned by Foucault) often have no authors. When technical documents are *conveyed* by named individuals, these are again not authors in the sense of originating meaning—these are simply not discourses that produce an author. Even in these cases, however, for reasons considered later, technical communicators are rarely listed among the conveyers.

Technical documents and writing in science and engineering do often name authors (what Foucault calls the writer). In this case, the author remains the sender in the transmission sense but, articulated now to the concept of conveyance of scientific fact, as an authority. Rarely, again, is authorship in these cases extended to the professional technical communicator. In part, the attribution of authorship here to

the scientist or engineer at the expense of the technical communicator must be explained in terms of the tenacity of other articulated elements: the neutrality of scientific discourse, the practice of attributing ownership to ideas, a conception of invention as the expression of individual genius, capitalist relations of property and appropriation, and the persistence of the elevation of the scientific discourse over humanistic discourse (see Horkheimer and Adorno). In other words, specific relations of power articulated to a particular conception of science account for the specific identity of authorship in the sciences and the exclusion of the technical communicator from that attribution.

To evoke *author* in theory or practice from within the transmission view evokes, like a chain reaction of connotations, all these articulations, which struggle—whether purposefully or not—to hide the work that goes into fixing the identity of that work. These articulations are nonnecessary; that is, there is no necessity that they be connected in just this way and no guarantee that they will remain connected in this way. Indeed, translation works to rearticulate the question of authorship, although its challenge is incomplete.

Although the translation view suggests a more elevated role for the translator, it does not grant authority. To put it another way, the translator is seen as an expert, but only in mediating, not authoring, meanings. This is even the case in the humanities, where debates ensue over whether or not to give translators the same credit in tenure and promotion reviews as authors. In technical communication, the unique skill of individuals may be recognized as acts of mediation, but as an activity, the discourse still does not grant them authorship. Again, we suggest that this is in part due to the tenacity of some of those same relations of power discussed earlier: the practice of attributing ownership to ideas, the conception of invention as the expression of individual genius, and capitalist relations of property and appropriation.

By resting on the conception of author as articulated to the contribution of meaning, by challenging the articulation to differential relations of power between sender, translator, and receiver as being somehow evident, and to the conception of science as objective fact finding, we would advance the rearticulation of technical communicators (along with media and technology) as having authorial power. We cannot grant technical communicators status as authors merely in the scientific sense of *conveyers of fact*. That would be to deny the insight of even the translation view that asserts that the discourse of the translator (whether the translator be scientist, technology, me-

dium, or technical communicator) must be understood as involved in the compromise. Rather, technical communicators are theoretically situated in the process of articulating meaning just as prominently as are the sender and the receiver. The process of communication is then not simply a transmission or a translation but an articulation of voices, much like what Bakhtin has characterized as the orchestration of “heteroglot, multi-voiced, multi-styled, and often multi-languaged elements” (265).

It should be obvious that different articulations empower different possibilities and disempower others. When technical communicators are not articulated to authorship, their possible contributions are severely constricted. Whether they desire it or not, technical communicators are seen as variously adding, deleting, changing, and selecting meaning. Again, whether they desire it or not, they are always implicated in relations of power. Their work is at least *complicit* in the production, reproduction, or subversion of relations of power. This is necessarily the case, even when the acceptance of the transmission or translation view may occlude the nature of the work that they do. Technical communicators *are* authors, even when they comply with the rules of discourse that deny them that recognition. When they are denied that recognition, the measure of their success can only be complete compliance with the articulations of meaning, power, and authorship from the standpoint of the transmission and translation views.

The consequences of extending authorship to technical communicators are significant. With the recognition that the communicator articulates and rearticulates meaning comes the responsibility for that rearticulation. No contribution is really transparent; it is only rendered transparent in relations of power. So, just as the power of technical communicators is recognized (as they are empowered), so too must they be held responsible.

IMPLICATIONS FOR PEDAGOGY AND PRACTICE

We heard recently of an industry recruiter who—venting some frustration over graduates knowing more theory than was good for them on the job—said, “We want robots!” This frustration has, we submit, several sources. First, and most obvious, we take this to be a plea for technical communicators to perform their transmission function well. We would not dispute the need to be able to perform

skillfully using effective grammar, editing, media management, and so on.

But there is more in the recruiter's frustration. Second, then, this plea points to the fact that the field is growing rapidly in the tension between transmission, translation, and articulation. Although that tension is generative, it does not result in easily written job descriptions, clear definitions of the technical communicator's role, task, and ethos. Sometimes there is a lack of clear vision and agreement—among practitioners and their employers—about what is expected of a technical communicator and what it is he or she has to offer. In addition, however, that plea for robots suggests that there exists a particularly tenacious articulation between the conception of communication as the transparent transmission of messages, the neutrality of science and engineering, and perhaps even of the ethical neutrality of the ethics of capitalism. In fact, to behave as such a robot is to be complicit with the meanings thus articulated.

It is possible to look at some of the turmoil in the education of technical communicators and some confusions about the work of these graduates in terms of a field trying to come to terms with consequences of the technical communicator as author. The difficulties are twofold: On the one hand, the theoretical development of an articulation view has not advanced far enough to form a firm foundation for pedagogy and models of work. On the other hand, the changes that would result from this rearticulation—although theoretically and practically defensible—are not likely to come easily.

Nevertheless, because professional communicators contribute to the process of articulating meaning, whether they choose to or not, they must be able to analyze critically the ethical implications of the meanings they contribute to. Such knowledge is all the more important given the current tendency to define their work as (ethically) transparent. In a sense, technical communicators need to be shaken from the somnambulistic faith that their work is ethically neutral. Steven Katz's examination of a virtually "perfect" technical document proposing changes in a vehicle designed to asphyxiate prisoners during the Nazi holocaust ought to put an end to any assertion of ethical neutrality. It is not simply *how well* we communicate that matters. *Who* we work for and *what* we communicate matters.

The nearly ubiquitous calls for technical communicators to learn more about the technical content of their work (see, for example, Institute of Electrical and Electronics Engineers), even to participate in the early stages of project design, can be understood as easily articu-

lated to the conception of the communicator as author. Such technical knowledge can provide the backdrop for sound, ethical decision making, as well as for competent transmission and translation.

In addition to ethics and technical knowledge, it seems equally essential that technical communicators have a superior grasp of the relationship between technology and discourse and between science and rhetoric (Horkheimer and Adorno; Miller; Wells; Sullivan; Katz). It is essential that we learn to analyze critically the articulations evoked in the language of technology and science. In a sense, technical communicators need to be shaken from the somnambulistic faith that their work is linguistically neutral.

Finally, we would add to the education of technical communicators knowledge of how organizations operate—in the form of organizational communication or organizational behavior. It is remarkable how little most of us understand the relationship between power, knowledge, and organizations. It is time that we give up the faith that the goal of communication is always clarity and brevity. In practice, the politics of organizations and organizational politics often have as their goals limiting, obscuring, or hiding information (Wells; Katz; Butenhoff). Naïveté about how organizations work articulates well to the myth of the technical communicator as engaging in an ethically and linguistically neutral activity.

To send out technical communicators with this kind of knowledge is to send them out armed.¹ It is impossible for technical communicators to take full responsibility for their work until they understand their role from an articulation view. Likewise, it is impossible to recognize the real power of technical discourse without understanding its role in the articulation and rearticulation of meaning and power. This understanding would thus empower the discourse of technical communicators by recognizing their full authorial role.

NOTE

1. We invite our readers to explore the consequences of this view for the role, task, and ethos of technical communicators as advocates for their constituencies: their employers, clients, and audiences. As advocates, they would be more like lawyers than their current status acknowledges. Although technical communicators have less in terms of codified law or precedent on which to draw, they could be understood as advocating for, counseling, advising, defending, or building cases. This change in status complicates the relationship to their constituents: The counsel of communicators might be accepted, rejected, or resisted (or litigated against!). But just as a lawyer's duty is to

inform employers or clients of the possible consequences of their actions, so too should it be the technical communicator's duty to inform employers or clients of the consequences of their rhetoric!

In addition, this view suggests that the expertise of technical communicators is applicable to the articulation of meaning well beyond the confines of science and engineering (or business). Instead, its scope can easily be understood as encompassing situations in which the transmission, translation, and articulation of specialized knowledge is at issue.

Finally, we do not offer this invitation with any pretense that advocacy or authorship will *simplify* the role, task, and ethos of technical communicators. We offer no apology, however, for we are advocating here changes that are already underway, even if they are not very well understood.

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