Hold that Thought!

Questioning five common assumptions about communicating with the public

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Oregon Sea Grant
Public Science Communication
Research & Practice

Sea Grant
Oregon

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Acknowledgments

This essay was improved by the comments of colleagues and fellow communicators Rick Cooper, Patrick Corcoran, Sally Duncan, Marsha Gear, Jack Greer, Bob Malouf, Lee Sherman, Susan White, and Marie Zhuikov. I appreciate their counsel. Errors and follies that remain are my own doing.

Text by Joe Cone; editing by Rick Cooper; design by Patricia Andersson.

This report was prepared by Oregon Sea Grant under award number NA06OAR4170010 (project number M/A-21) from the National Oceanic and Atmospheric Administration's National Sea Grant College Program, U.S. Department of Commerce, and by appropriations made by the Oregon State legislature. The statements, findings, conclusions, and recommendation are those of the authors and do not necessarily reflect the views of these funders.

Oregon Sea Grant
Corvallis, Oregon

ORESU-H-08-005

Introduction

This article is a companion to ***Expand Your View:*** *Insights for public communicators from behavioral research.*

This essay is offered to the professional who works in a university, government agency, or non-governmental organization and communicates with the public, mainly about scientific or technical information. Education, training, job titles, and specific responsibilities will differ, but if the core of what this professional does is *communicating* with the public about scientific or technical information and attempting to engage people, then for purposes of this article—and in fact—he or she *is* a "communicator."[1] My intent is not to diminish, or enlarge, the professional title. But I think a good deal of understanding and common cause are lost when someone acting in this capacity does not see him- or herself as a *communicator* but rather by the occupational title of Extension agent, science writer, public educator, public information officer, organizational spokesperson, or even agency manager or research scientist "just doing some outreach." A common goal of all such professionals is to cause at least some change in understanding through communication.

I invite these readers to examine five assumptions that are likely to sound familiar, as they are frequently spoken or implied. My goal is to improve professional practice by reflecting on these assumptions. The brief treatments are obviously not intended to be exhaustive but suggestive. Nor have I addressed all the assumptions that are made about communications; I've merely selected the ones that, in the course of my own 30-year work life, seem to arise most frequently. To anchor my comments, I refer the reader to social science research that illuminates or, sometimes, corrects the assumptions.

If this essay accomplishes nothing else, I hope it suggests the value for communicators in becoming more familiar with contemporary research in the social sciences. Particularly those who communicate science and technology might want to be familiar with research that relates to the *science of communication*—for the basic reason that it could improve their work. Professional articles in relevant fields, including behavioral sciences, judgment and decision-making, learning, and, of course, communication, are readily found online these days; search engines can rapidly take the inquisitive to virtually any topic one can think of, and the challenge and stimulation to be found are their own reward.

In the appendix are some models of communication and behavior change in graphical format with brief commentaries.

A companion article to this one, *Expand Your View*, offers insights from behavioral research for improving public communications.

Assumption 1

"*We* **need** *to get* the **word** *out.*"

Individuals and institutions may see it as their responsibility, or indeed *have* the mandated responsibility, to share certain information with all or part of the public. Often this sharing is intended just to make public some organizational action; the intent may also be to benefit the public or cause some kind of change. These days, "getting the word out" commonly translates to sending news releases to the news media or posting items on a Web site.

However, the often-repeated institutional call to "get the word out" usually reflects a one-way model of communication *[see Appendix 1.1]* that typically indicates that not enough critical thinking has preceded it if the intent is truly to interest and engage other people. In general, when presented with information, the "public" is just like most individuals: their attention is volatile, and they tend *not to be* vitally interested in *someone else's* information, products, or services, absent some reason of their own.[2]

Communicators often stumble when driven by a presumed "information deficit" on the part of the intended other party to the communication. Scientists, professors, agency officials, and other holders of specialized information are particularly prone to this stumble, as they tend to believe that what they know is valuable, and if others would only receive it, then *good things would happen.* The irony is that the real "information deficit" resides in those who persist with this model, despite substantial evidence that it doesn't produce intended results.

> *Since World War II, the science community has been operating under this information-deficit model, built on one-way flow of information from the expert to the public with very little information flowing back the other way. This model drove communication of science and technology for the last half of the 20th century, despite its very obvious shortcoming: Neither public support for research nor scientific literacy increased significantly in all that time.*[3]

In fact, the presentation of a message intending to persuade, but which is not considered persuasive by the audience, may occasion the opposite of the intended effect—a negative reaction to the message or to the messenger.[4]

While "getting the word out" most often entails a diffuse publicity orientation that produces items that disappear quickly, sometimes this orientation is more ambitious and leads to the development of elaborate Web sites, "digital clearinghouses," or complex multimedia repositories, which still may not have a clear relationship to the information needs and interests of individuals or groups.

Consider:

- Are you wanting to *communicate* or just publicize? Consider that most define communication as a dialogue and a process, not a monologue and a product.[5]
- You may wish to ask—and answer—the fundamental question: "Who external to our organization wants or needs us to 'get the word out,' and how do we know that?"

Assumption 2

"*We* **already know** *how to communicate with this audience about subject X.*"

This statement may indeed be true, if the appropriate homework has been done. But remarkably, organizational communications often fail or fall short because such homework has not been done.

Communication causes change. In this sense, to communicate successfully with anyone usually begins with knowing what you want to accomplish, learning about the person or persons you intend to communicate with, and discovering how they currently view what you wish to communicate about. Sometimes it's unnecessary to ask the individual or group directly about these matters, if indirect and reliable sources of information about them and their views exist. But for public communications, often it does mean *asking a group* in large enough numbers and in an unbiased way.

Fortunately, many well-established, science-based approaches to this inquiry exist, so communicators don't need to invent open-ended interviewing,[6] surveying,[7] focus groups,[8] or qualitative evaluation[9] methods. A review of the literature will provide useful guidance.

Ultimately, both scientists and nonscientists benefit from a recognition that communication is best understood as a process, and during the process all parties are trying to influence the understanding of others, while weighing or framing information with reference to themselves and their interests.[10] The point that all communicators know but sometimes forget at their peril is: your audience is not an empty vessel simply awaiting your filling with what interests you.

Assumption 2 embeds a corollary of which knowledge-holders and producers are often unconscious, which can be stated as "the intended recipients of our information think like we do and want to receive information the way we want to present it." That is by no means a given. Producers need to be alert to a fascination with a particular tool. As Mark Twain put it, "To a man with a hammer, everything looks like a nail." Today, that freely translates to, "Let's put *it* on our Web site." *OK—and then?*

Consider:

- Ask yourself *how* you know about the audience. What methods have been used? What questions have been asked? How confident are you in the reliability of the information?
- What information do you have about the audience that would guide this *specific* communication?

"If they **only** *had information Z, then their* **behavior** *would change."*

It depends on what the "information" is, but often this formula betrays another assumption, which is sometimes dangerous for communicators when their managers or leaders believe it, too, and *expect* behavioral change. The information/behavior-change connection is rarely immediate, direct, or simple, and is therefore unwise to promise based on any single communication.

A vast amount of social science research since the 1950s speaks to how people exercise judgment, make decisions, and change behaviors (each of these is a separate research domain, with many experts). Those who study behavior change have established that it typically happens when the individual has established the *intention* to change; and intention is usually dependent on appropriate and motivating beliefs, support from the individual's sense of what's typically done by people like him, and a perceived ability to perform the activity.[11] Even then, good intentions may run afoul of limitations or constraints the individual encounters in his or her environment. This is why providing information about a *behavioral goal* (for example, "Help stop invasive species!") by itself is usually not sufficient to cause behavior change.

The key insight for communicators is that a durable behavior change may come at the *end* of a communication process, but the recipient of the communication typically needs to go through several stages of "processing" the information before this occurs. A number of research-validated models for this processing have been developed by social scientists, and it may be useful for communicators to become familiar with them, at least insofar as the models *describe* the process:[12]

- The "integrative model of behavioral prediction" *[Appendix 1.2]*
- The "stages of change" model *[Appendix 1.3]*
- The "hierarchy of effects" model *[Appendix 1.4]*

It's important for communicators not to get seduced by possessing information. As mentioned earlier in connection with the first assumption, while scientists and some science communicators seem to believe that others suffer from an "information deficit" that they can remedy, the question communicators must ask themselves is *Have I done a proper diagnosis?* If you're trying to provide information to help people make a decision or take action, what *decisive* information is it that they *don't have?* Lacking such a diagnosis, communicators may tell people what they already know and not tell them what they need to know. This isn't a good formula for effective communication.[13]

Consider:

- Is durable *behavior change* really the goal of your communication? (Perhaps you just want people to take a particular action, even once.[14])
- What conceptual model of behavior change are you employing; that is, how do you think it occurs? You may not need to know the behavioral research, but you'll likely stumble around without some kind of model in mind for how change happens.

Assumption 4

"Recipients of our information will consider it thoughtfully *(and thus will* **learn** *what we'd like them to learn)."*

The proposition has two quite separable concepts: that (1) information is processed deliberatively, and (2) learning will result. While both *can* happen, social science research identifies at least five critical complicating factors:

1. **Volatile attention:** People have only so much mental energy and tend to be "cognitive misers." Deliberative processing of communication is by no means assured; distractions are likely, and distractions can affect message-processing negatively—*or* positively.[15] Particularly when people are asked to make a decision or judgment where there's uncertainty, certain mental shortcuts ("heuristics") are commonly used and *may not serve the user well*.[16]
2. **Uncertain results of processing:** Listening to an argument thoughtfully may result in agreement, but it can, of course, provoke disagreement *[see Appendix 1.5, the Elaboration Likelihood Model of persuasion]*.[17] Overall, learning involves some degree of "yielding" to the information presented by another and is not a given.[18] In addition, an individual's *conscious* processing can be preempted by social influence, which works powerfully on the subconscious,[19] and by rapid cognition, "the thinking that happens in the blink of an eye."[20]
3. **Filtering by values:** Citizens are rarely well enough equipped or motivated to consider the torrent of competing ideas with which they are constantly bombarded. Instead, they use value filters (predispositions such as political and religious beliefs) to screen out much of this torrent, to determine what sources and arguments to pay attention to.[21]
4. **Knowledge construction:** Voluntary or "free-choice" learning is *constructed* by the individual, interacting with others, rather than simply "absorbed" from some information source. Contemporary research summarizes learning as "always a highly personal process, highly dependent upon past experiences, occurring within a highly situated socio-cultural context, and involving multiple sources of experience and information, which collectively contribute to knowledge construction."[22]
5. **Competing sources:** Access to information and its rapid dissemination among interested parties made possible by the Internet has made it very unlikely that consequential statements claiming to be authoritative will go unchallenged.[23] The Internet holds great promise for learning, but one peril is clear. Many more sources of information are more available than ever before, and the learner may either not be able to tell which sources are knowledgeable and trustworthy or as noted above will simply select a source that agrees with his established opinions or values.[24]

Consider:

- Question assertions that a communication is intended to "educate" the public.
- If some specific *learning* is indeed a critical goal, communicators should consider collaborating with a team that (sensibly) might include a specialist in learning research, particularly someone familiar with non-school or free-choice learning.

"Successful communication is an **art.**"

Public communicators may want to watch out for this one because of what it does *not* say.

Yes, for those who design and produce media, "art" *is* important. It is wise not to underestimate the effects of words and images and the media that convey them. But even more important for communicators is creativity—that mysterious yoking of aptitude and experience brought to illuminate a current task. That is the *art* of communication.

Practitioners of artful communication, it should be said, can readily be found in the parallel universe of sales and marketing, and what accounts for their success as persuaders is stimulating to think about, as described in a continuous stream of "business psychology" best-sellers.[25] For instance, public communicators can probably benefit from the explanation for why the historical Paul Revere was such a successful communicator (to summarize baldly, he was a superb "connector" at work in a powerful social-historical context).[26] And it's intriguing to consider what traits and behaviors made Joe Girard "the greatest car salesman," according to *Guinness World Records*.[27] But ultimately, the art of persuasion should not be the main study of communicators who wish to be trusted.

Instead, success in public communication, particularly about science, usually involves the pursuit of objectivity and the application of science—social science—consciously and systematically. In general, scientifically guided evaluation is the best way to formulate communication, test it, and determine whether the communication accomplished its purposes. Specifically, well-established communication models based in social science do exist and have shown their practical value, such as the nonpersuasive communication/risk communication model[28] *[see Appendix 1.6, Nonpersuasive communication].*

Finally, communication specialists —that is, writers, editors, designers, et al.—want to be careful of the "you're an artist" trap. If the scientists or other "subject-matter experts" believe that communication is "only" an art, they're more likely not to consult with the communicators on what to communicate, with whom, and why. But once having taken a stab at those crucial decisions, they may leave the specialists their incompletely formulated communication ideas to "wordsmith," "do the layout," or "put on the Web." This can be a no-win situation; if the communicator slavishly follows the subject-matter experts, the communication may miss the audience mark. If the communicator uses her experience to refine the approach, the subject experts may not agree or be pleased with the result. (They in fact may not understand it.) Better to assert your equal, collegial role in the communication process much earlier.

Consider:

- Challenge the "wordsmith" cant. Getting the words right is not a trivial pursuit; it results from thinking clearly. Communicators are only doing their job by requiring "subject-matter experts" to be clear and detailed about what they know which they believe should be communicated, with whom, and why.
- When faced with a communication task, the better first thought is not "Can I do it?" but "If I do it, what do I need to know to do it better?"

Appendix: Models of communication and persuasion

What are they?

"In the broadest sense, a model is a systematic representation of an object or event in idealized and abstract form. Models are somewhat arbitrary by their nature. The act of abstracting eliminates certain details to focus on essential factors. . . . The key to the usefulness of a model is the degree to which it conforms—in point-by-point correspondence—to the underlying determinants of communicative behavior."[29]

Models should clarify complexity, make it possible to ask intelligent questions, and lead to new discoveries.[30] It probably goes without saying that each of the models shown here is just one way of visualizing a substantial amount of research, which not surprisingly in each case has its adherents and detractors.

1.1. The "one-way transmission" model of communication

Originally described in 1949 by engineers for Bell Telephone, the goal of the model was to help engineer telephone transmission. But it became the most influential of all early communication models and probably still represents the basic model that many people hold in their minds. The lead engineer, Claude Shannon, later introduced a correcting mechanism at the receiver; this became "the forerunner of the now widely used concept of feedback (information which a communicator gains from others in response to his own verbal behavior)." [31]

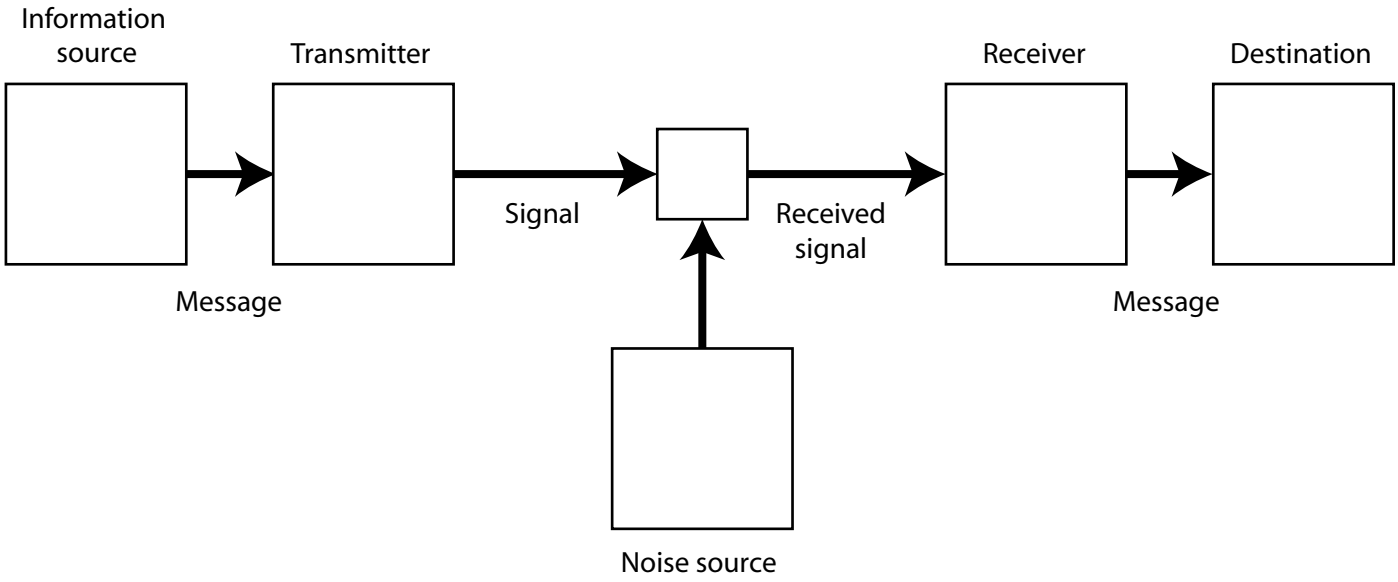

Figure 1.1.— The "one-way transmission" model of communication.
(Model redrawn from "Schematic diagram of a general communication system," Shannon and Weaver 1963)[32]

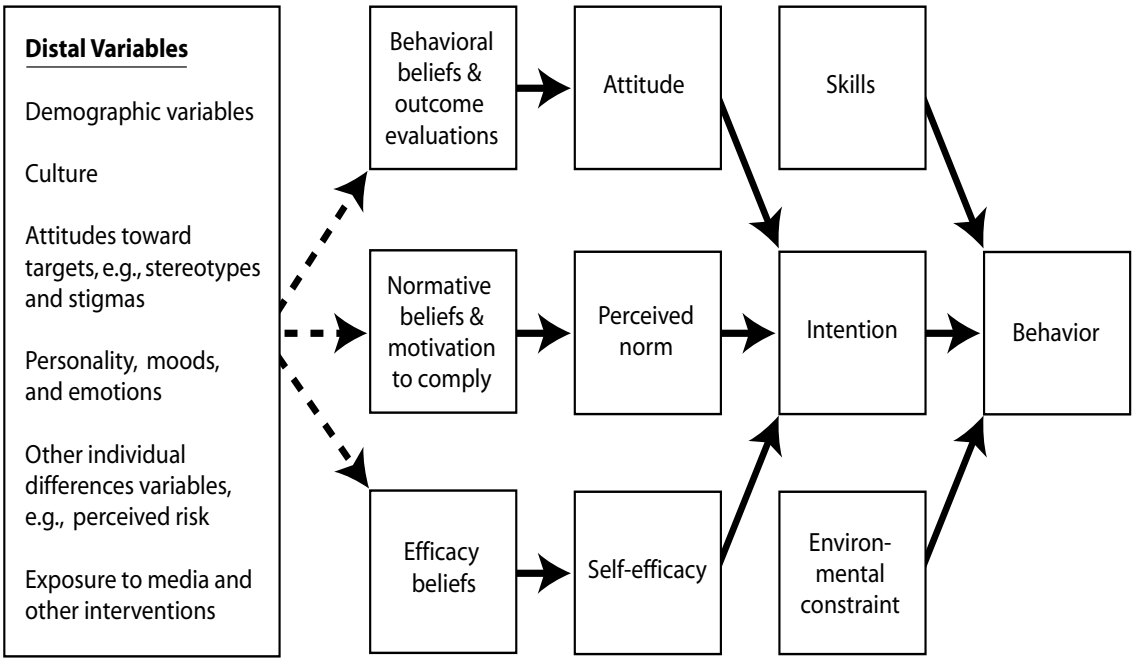

Figure 1.2.— The "integrative model of behavioral prediction."
(Model redrawn from "An Integrative Model of Behavioral Prediction," Fishbein and Yzer)[34]

1.2. The "integrative model of behavioral prediction"

Behavioral psychology can help clarify what happens to information on its way to action. What enables individual behavior, this particular model suggests, is the coming together of key determinants. A weakness at any point can undermine or disable the behavior.

People fail to do things not just because they don't have the appropriate information. They may have the information but have not yet formed the intention, because their attitude toward the behavior isn't positive or the behavior isn't consistent with what they believe "people like me" should do, or perhaps they just lack confidence in their ability to perform the behavior. Without these, intentions don't form, and if they do, a lack of personal skills or some other constraint in the "environment" prevents the individual from realizing that intention. The model shown here, developed largely through health communication research, was developed by leading researcher Martin Fishbein, and is supported by other models: the Health Belief Model, Social Cognitive Theory, the Theory of Reasoned Action, and the Theory of Planned Behavior.[33]

1.3. The "stages of change" model

The stages of change are properly just part of a larger "transtheoretical model of change" that also includes the processes by which one moves between stages.[35] "Five stages of change have been conceptualized for a variety of problem behaviors. The five stages of change are precontemplation, contemplation, preparation, action, and maintenance. Precontemplation is the stage at which there is no intention to change behavior in the foreseeable future. Many individuals at this stage are unaware or underaware of their problems. Contemplation is the stage at which people are aware that a problem exists and are seriously thinking about overcoming it but have not yet made a commitment to take action. Preparation is a stage that combines intention and behavioral criteria. Individuals at this stage are intending to take action in the next month and have unsuccessfully taken action in the past year. Action is the stage at which individuals modify their behavior, experiences, or environment in order to overcome their problems. Action involves the most overt behavioral changes and requires considerable commitment of time and energy. Maintenance is the stage at which people work to prevent relapse and consolidate the gains attained during action."[36] Relapse or regression to a previous stage can occur at any point.

While all models have adherents and detractors, it should be noted that this model has been very strongly challenged as inadequate in describing what really happens during behavioral change: "the problems with the model are so serious that it has held back advances in the field of health promotion and, despite its intuitive appeal to many practitioners, it should be discarded."[37]

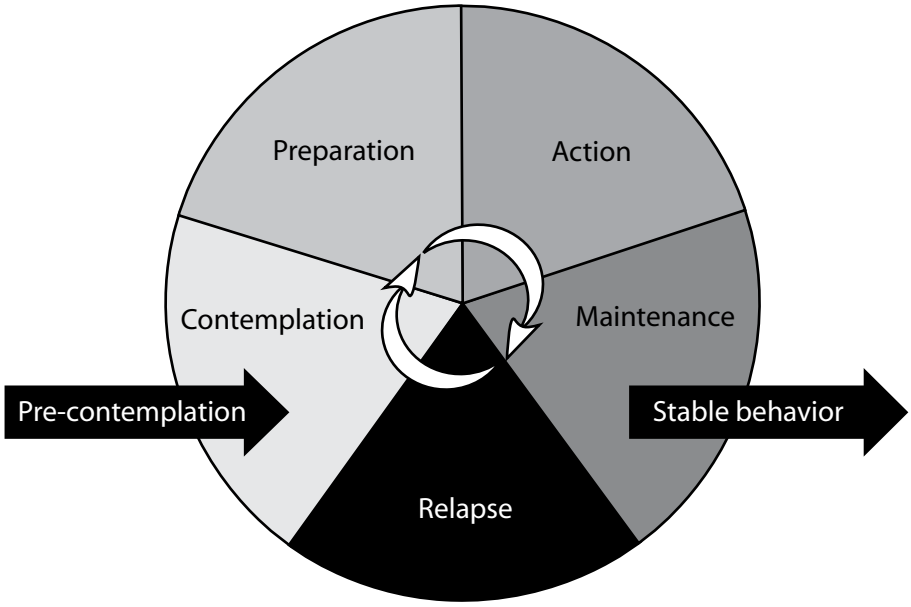

Figure 1.3.— The "stages of change" model.

1.4. The "hierarchy of effects" model

William McGuire imagined human information processing as akin to the linear logic of a computer and developed several versions of essentially the same "hierarchy of effects" model, from the 1960s through the 1990s. The model was meant to describe the "processing" of persuasive information that consumers typically are confronted with in the marketplace. Although later elaborated into twice as many steps, the original six steps give the model's essential framework:

1. The persuasive message must be communicated.
2. The receiver will attend to the message.
3. The receiver will comprehend the message.
4. The receiver yields to and is convinced by the arguments presented.
5. The newly adopted position/attitude is retained.
6. The desired behavior takes place. [38]

As McGuire's cartoon below indicates, the model assumes a linear progression with each stage presenting a yes/no decision point.

McGuire's 1999 formulation, with 13 steps, puts more flesh on this skeleton (and has many "stage" elements in common with other models). But many observers question whether the mind is so orderly.

1. Exposure
2. Attention
3. Liking
4. Comprehension
5. Cognitive elaboration
6. Skill acquisition
7. Agreement
8. Memory storage
9. Retrieval
10. Decision making
11. Acting on decision
12. Cognitive consolidation
13. Proselytizing [39]

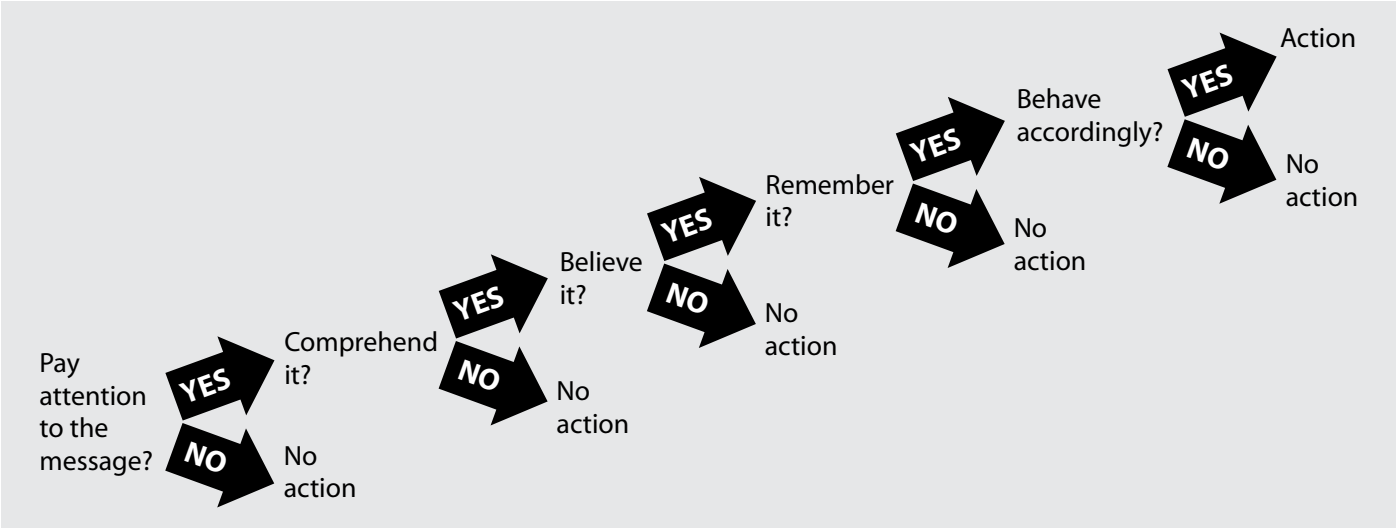

Figure 1.4.— The "hierarchy of effects" model.
(Model redrawn from "An Information Processing Model of Advertising Effectiveness," W. J. McGuire, Behavioral and Management Sciences in Marketing, edited by H. L. Davis and A. J. Silk, 1978)

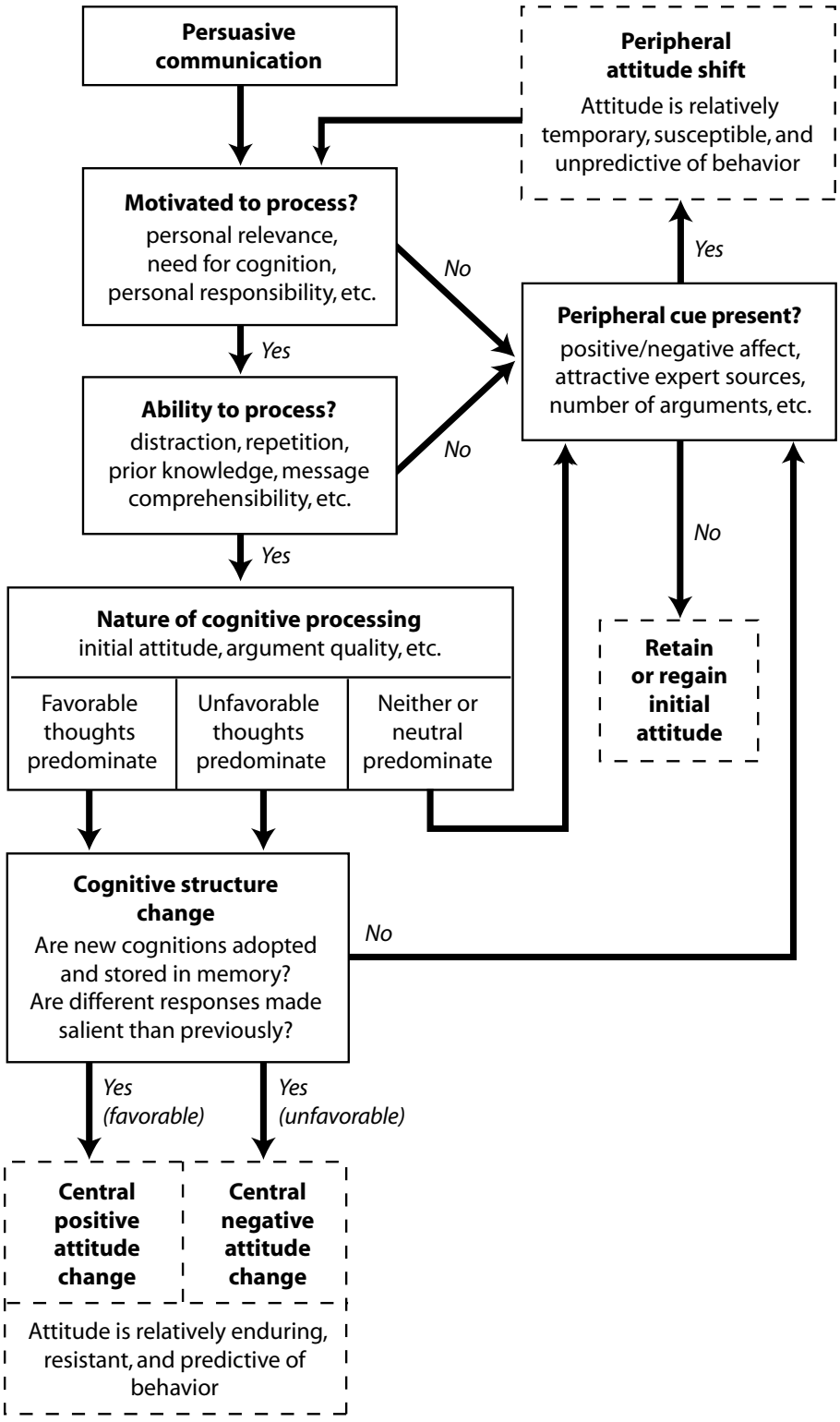

Figure 1.5.— The Elaboration Likelihood Model.
(Model redrawn from "The Elaboration Likelihood Model," R. E. Petty, J. A. Kasmer, C. P. Haugtvedt, and J. T. Cacioppo, 1987, "Source and message factors in persuasion: A reply to Stiff's critique of the elaboration likelihood model," Communications Monographs *54: 233–249)*

1.5. The Elaboration Likelihood Model

Are people always as thoughtful and stepwise in their thinking as the preceding models suggest? The Elaboration Likelihood Model, developed by Richard Petty and others, finds two very different routes for attitude change: a "peripheral" and a "central" route. People are often distracted, unmotivated, or too busy to really think about a topic intended to persuade them. Instead of a stepwise logic, they use peripheral cues and mental shortcuts to make a decision. These shortcuts may be based on visuals, on previous knowledge, or on associations.

On the other hand, when motivated, people may use the central route, which focuses on evaluating arguments. Attitudes changed along the central route are more persistent, more resistant to counterpersuasion, and more predictive of behavior than attitudes changed along the peripheral route.

1.6. Nonpersuasive communication

In contrast to the preceding analytical models, which are all primarily concerned with how to make persuasion effective, is the "nonpersuasive communication" model advanced by Baruch Fischhoff and others.[40] This model proceeds from a different premise:

> *People tend to make reasonable choices if they get key facts in a credible, comprehensible form; have control over themselves and their environment; are judged by their own goals; and have basic decision-making competence.*[41]

As a result of this premise, the orientation of nonpersuasive communication is on the decision making of the communication recipients rather than the persuasion methods of the communicators. In order to communicate a scientific or technical topic about which the recipient may or should make a decision (often a "risk" topic), the model developed by Fischhoff and others focuses on understanding the recipients' beliefs about the topic through the following steps:

1. create a model (diagram) of expert understanding of the topic;
2. with reference to the expert model, conduct open-ended interviews with the intended audience to solicit their beliefs about the topic;
3. conduct structured surveys in order to confirm understanding obtained in step 2;
4. use the information from the previous steps to draft a communication that addresses the incorrect beliefs that are most important to correct and the knowledge gaps that need to be filled;
5. test and refine communication until successful.[42]

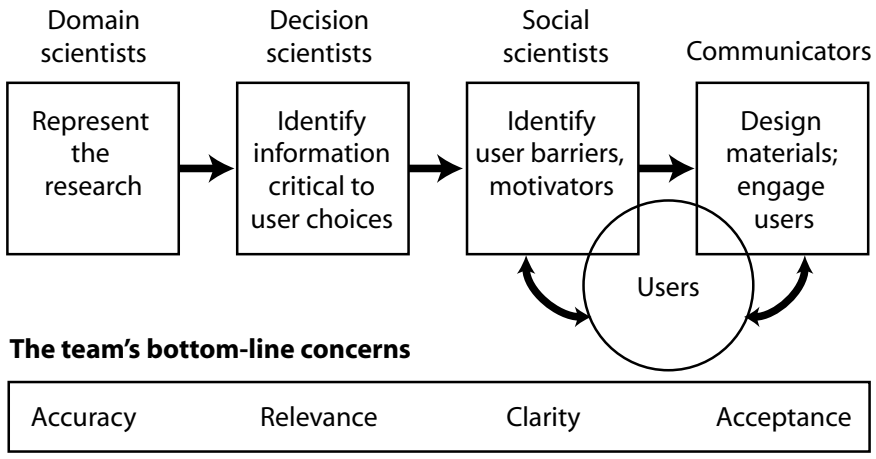

Figure 1.6.— Nonpersuasive communication.
(Model redrawn from "The 'Nonpersuasive Communication' team approach," Baruch Fischhoff, Nonpersuasive Communication about matters of greatest urgency: climate change, Environmental Science & Technology A-Page Magazine, *41 (21): 7204-7208)*

Endnotes

[1] Communication can be defined and described in a number of ways, of course. For example, distinctions can be made between one-to-one communication and one-to-many communication. Face-to-face, spoken, verbal, nonverbal, written, visual, and other distinctions all have important nuances. Even so, the root of the word links it to "commune" and "common" and underlines the notion of a togetherness, of something held in common, "two-way."

[2] For a review discussion of "attention as the scarce resource," see Payne, J. W. and J. R. Bettman (2004), "Walking with the Scarecrow: The Information-Processing Approach to Decision Research," *Blackwell Handbook of Judgment and Decision-Making*, D. J. Koehler and N. Harvey; Oxford, U.K.: Blackwell Publishing, pp. 110–132.

[3] Rick Borchelt and Kathy Hudson, "Engaging the Scientific Community with the Public: Communication as a dialogue, not a lecture." www.scienceprogress.org/2008/04/engaging-the-scientific-community-with-the-public/, accessed 5/21/08.

[4] One classic model for information processing is the "Elaboration Likelihood Model" discussed in Petty, R. E., J. T. Cacioppo, et al. (1983), "Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement," *Journal of Consumer Research* 10(2): 135–146.

[5] Weber, J. R. and C. S. Word (2001), "The Communication Process as Evaluative Context: What Do Nonscientists Hear When Scientists Speak?" *Bioscience* 51 (6): 487–495.

[6] See Chapter 4 in Morgan, M. G., B. Fischhoff, et al. (2002), *Risk communication: a mental models approach*, Cambridge and New York: Cambridge University Press.

[7] Although the following source does not cover Web-based surveying, it is still useful: Salant, P. and D. A. Dillman (1994), *How to Conduct Your Own Survey*; New York: John Wiley & Sons.

More recent titles by Dillman do discuss Web surveys.

[8] Morgan, D. L. (1996), "Focus groups," *Annual Review of Sociology* 22: 129–152.

[9] Patton, M. Q. (2003), "Qualitative evaluation checklist." *Evaluation Checklists Project*; Western Michigan University.

[10] Weber and Word 2001, p. 493.

[11] Fishbein, M. and M. C. Yzer (2003), "Using Theory to Design Effective Health Behavior Interventions," *Communication Theory* 13(2): 164–183.

[12] Using such descriptive models to *prescribe* a communication intervention, while tempting, requires caution.

[13] Morgan et al. 2002, 2:1. "An effective communication must focus on the things people need to know but do not already. This seemingly simple norm is violated remarkably often . . . ."

[14] The commitment demonstrated by taking an action can sometimes cause an individual to continue taking that action, because of the principle of consistency, described by Robert B. Cialdini (2006), *Influence: The Psychology of Persuasion*, Revised ed.; New York: Collins. Cialdini's entire chapter 3 is devoted to "Commitment and Consistency."

[15] Discussed in amusing detail, particularly at pp. 270–71, by Petty, R. E. (1997), "The Evolution of Theory and Research in Social Psychology: From Single to Multiple Effect and Process Models of Persuasion," *The message of social psychology: Perspectives on mind in society*, C. McGarty and S. A. Haslam; Oxford, England: Blackwell Publishing, pp 268–290.

[16] Tversky, A. and D. Kahneman (1974), "Judgment under Uncertainty: Heuristics and Biases," *Science* 185: 1124–1131.

[17] Richard E. Petty, John T. Cacioppo, and David Schumann (1983), "Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement," *Journal of Consumer Research* 10 (2): 135–46.

[18] Fishbein, M. and I. Ajzen (1981), "Acceptance, yielding, and impact: Cognitive processes in persuasion," *Cognitive processes in persuasion*, R. E. Petty, T. M. Ostrom, and T. C. Brock; Hillsdale, NJ: Erlbaum, pp. 339–359.

[19] Cialdini, R. B. (2006), *Influence: The Psychology of Persuasion*; New York: Collins.

[20] Gladwell, M. (2005), *Blink: The Power of Thinking without Thinking*; New York: Little, Brown and Co.

For a précis, see www.gladwell.com/blink/index.html.

[21] Nisbet, Matthew C. and Chris Mooney, (2007) "Framing Science," *Science*, vol. 316, p. 56.

[22] Falk, J. H. (2001), "Free-Choice Science Learning: Framing the Discussion," *Free-Choice Science Education: How We Learn Science Outside of School*; New York: Teachers College Press, p. 15.

[23] Half of all Americans had broadband at home, according to the Pew Internet Project's September 2007 survey, marking the first time that as many as 50 percent of respondents said they had high-speed Internet connections at home. Source: www.pewinternet.org/PPF/r/226/report_display.asp, accessed 5/21/08.

[24] It was always a myth, but the scenario of the godlike scientist bestowing "the word" on an information-deprived populace is particularly

dubious today.

[25] Three often-cited bestsellers are (in paperback) Gladwell, M. (2002), *The Tipping Point*, New York: Back Bay Books; Donald Moine and Ken Lloyd (2002), *Ultimate Selling Power*, Franklin Lakes, NJ: Career Press); and Cialdini's (2006) *Influence* (Collins).

[26] Gladwell, *Tipping Point*, 2002, 30ff. explains in what sense Paul Revere was a "connector."

[27] Cialdini, *Influence*, p. 170ff.

[28] Morgan et al., *Risk Communication*, 2002.

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ORESU-H-08-005