

A Content Analysis of the Treatment of Informative and Reinforcing Feedback in Contemporary Communication Theory Textbooks

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The purpose of this study was to conduct a content analysis of the conceptual treatment of informative and reinforcing feedback in contemporary communication theory textbooks. Ten books were selected for analysis. The data revealed that while the authors of nine of the texts implicitly distinguished between the informative and reinforcing functions of feedback, only one explicitly identifies these two functions. None of the textbooks distinguishes between the two functions in any substantive way whatsoever. In effect, the textbook authors provide only a very marginal treatment of the ways in which listener feedback influences the future verbal and nonverbal behaviors of a speaker.

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Claude Shannon and Warren Weaver (1949) are credited with developing one of the “most-used” models of communication (Berlo, 1960, p. 29); it is a one-way (linear) model of electronic communication that identifies a sequence of physical events moving from a source to a receiver. It remained for Norbert Weiner (1954) and others to add the concept of feedback to discussions of communication processes, and to show the general applicability of this concept not only to mechanical systems, but to human ones (Cherry, 1957, p. 56; Littlejohn, 1978, p. 41). With the addition of the concept of feedback, numerous two-way (circular) models of human communication were soon developed. These two-way models not only embrace speaker messages that can affect the future verbal and nonverbal behaviors of a listener, they also embrace listener responses that can affect the future verbal and nonverbal behaviors of a speaker. In effect, a two-way model can be viewed as the smallest basic unit of human communication that encompasses the interactive processes that characterize both speaking and listening (Miller, Galanter, & Pribram, 1968, pp. 371-373).

In the earliest discussions of feedback communication engineers focused on *informative feedback* and the ways in which it can be used to regulate and control the performance of machines (Cherry, 1957, p. 56). Governors and thermostats were commonly cited as examples of mechanisms that respond to informative feedback. Shortly thereafter, discussions turned to the ways in which feedback can affect the performance of human communicators (Weiner, 1954, pp. 49-50; Gray & Wise, 1959, pp. 9-11, 207-208; Berlo, 1960, pp. 102-103).

People, of course, are different from machines. People have life experiences, values, beliefs, goals, etc., that enter into the interpretation of both speaker messages and listener-provided feedback. Also, both speakers and listeners operate within the social constraints of the current setting. In effect, where a machine is at issue, feedback functions in only one way: it provides *information* that helps to maintain a previously programmed course of action. However, where people are at issue, feedback functions in two ways: (1) through commentary, questions, and various nonverbal behaviors the listener provides *information* that can influence a speaker's *discriminal responding*. That is, how a speaker *sees* the audience and their interpretations of and/or compliance with one's messages. (2) Through attentiveness, tone of voice, agreement/disagreement, approval/disapproval, applause/silence, etc., the listener provides *reinforcement* that can influence how a speaker is motivated to communicate on similar occasions. That is, what the speaker is motivated to say, how the speaker says it, or whether the speaker says anything at all.

Although the *functions* of feedback have been categorized in various ways (Clements & Frandsen, 1976; Frandsen & Miller, 1983), virtually all of these functions fall rather easily into the two general categories of *informative* and/or *reinforcing feedback*. Some authors, including Clement & Frandsen, 1976, p. 25; Peterson, 1982, p. 101; Frandsen & Millis, 1993, p. 88, reference these two categories in terms of “information” and “influence.” However, the term “influence” can be used in reference to both informative and reinforcing feedback. The critical task then is not to distinguish

between “information” and “influence” but to distinguish between *informative* and *reinforcing* influences.

Briefly then, this paper takes the position that *informative* feedback affects the ways in which we “see” or conceptualize things; it is influential in the *cognitive* domain. In contrast, *reinforcing* feedback affects our inclination to take a particular action; it is influential in the *motivational* domain.

Purpose of the Study

Based on the perspective as stated above, the current study was designed to address the general question, “Does the literature on communication directly and explicitly distinguish between the two basic functions of feedback: its informative function and its motivational function?” To provide a partial but manageable answer to this question, a more specific one was addressed: “Do the *authors of contemporary communication theory textbooks* distinguish between the basic informative function and its reinforcing function?”

Importance of the Study

Feedback is a foundational concept regularly invoked by both scholars and lay persons. Unfortunately, however, feedback processes are referenced in very different and often very equivocal ways. This study is important because it addresses the two major ways in which feedback is influential: (1) Through *listener-provided information*, and (2) through the *reinforcing practices employed by listeners*.

This study is also important in a very practical way. It is designed to determine whether the authors of contemporary communication theory textbooks distinguish between the two basic functions of feedback: to *inform* and to *reinforce*. The answer to this question will help to determine if new steps must be taken to further explicate the foundational concept of *feedback* as presented in texts on communication theory.

Working Definitions of Key Terms

For the purposes of this study, *informative* feedback is defined as the verbal and nonverbal responses of a listener that influence the *discriminative responding* of a speaker; that is, the ways in which the speaker is prompted to *see* and *make* sense out of a particular situation. Informative feedback is influential in the *cognitive* domain. It is particularly useful in assessing the listener’s understanding of speaker messages, or listener compliance with speaker goals. When feedback provides the speaker with information that confirms successful progress toward listener understanding and/or compliance, it is called *positive* feedback. When feedback confirms listener misunderstanding or non-compliance with speaker goals, it is called *negative* feedback.

For the purposes of this study, *reinforcing* feedback is defined as the verbal and nonverbal responses of a listener that influence a speaker’s inclination to communicate in a particular way; that is, to say something in particular, to say it in a particular way, or perhaps, to remain silent. Reinforcing feedback is influential in the *motivational* domain.

When listener feedback *maintains* or *strengthens* a speaker's propensity to communicate in a particular way, it is called *positive reinforcement*. When listener feedback reduces or eliminates a speaker's propensity to communicate a particular way, it is called *negative reinforcement*.

Functional vs. Structural Definitions

It can be noted that the previous definitions are stated in functional as opposed to structural terms. A *functional* definition of feedback is based on an *empirically derived* correlation between a listener's feedback and changes in a speaker's communicative behaviors. A functional definition is a factual-type statement about this relationship as observed in a situation-specific episode of speaker-listener interaction.

In contrast to a functional definition of feedback, a *structural* definition pertains to the different *forms* or *categories* of conventional listener responses that historically are correlated with changes in the ways a speaker thinks, feels, or acts. In the case of *informative* feedback, *forms* of listener responses typically include statements of understanding/misunderstanding, relevant/irrelevant questions, etc. In the case of *reinforcing* feedback, *forms* of listener responses typically include statements of agreement/disagreement; approval/disapproval; smiles/frowns. The effects of a particular form of feedback on a specific speaker can vary, of course, based on third factors such as a speaker's life experiences, goals, values, beliefs, and anticipated consequences. Nevertheless, for the purposes of this study, both functional and structural definitions were viewed as potentially useful ways of distinguishing between informational and reinforcing feedback.

Multifunctional Feedback

From a functional view, *informative* feedback can affect how a speaker *sees things* without affecting what the speaker is motivated *to say* about them. Or, informative feedback can affect both the ways in which a speaker sees things (discriminal behavior) and the probability that the speaker will have something to say about them (one's motivation to communicate).

From a functional view, we can also say that *reinforcing* feedback can affect a speaker's propensity to communicate in a particular way without affecting one's view of what is going on. Indeed, we are often unaware of the successful reinforcing practices employed by our listeners. In many cases, however, reinforcing feedback affects both our propensity to communicate in a particular way *and* our ability to see what is going on. For example, I might talk more frequently if *reinforced* for doing so, but I might also interpret your reinforcing responses in terms of *information* about your interest in what I have to say.

Method and Procedures

This study addresses the question, "Do the authors of contemporary communication theory textbooks distinguish between the basic informative and reinforcing functions of feedback?"

In order to answer this question, ten contemporary communication theory textbooks, published from 2000 through 2007, were selected for review. The books were found on faculty bookshelves in a university department of communication studies. It was assumed that these ten textbooks would provide a meaningful sample of an important body of literature on the topic of feedback in the domain of human communication.

A content analysis was conducted on each of the ten books (see Appendix A). Specifically, the term “feedback” was found in the index of each book, and the definitions and examples of feedback were located and recorded. If a glossary was available and included the term feedback, this definition was also included. The following three questions were employed to guide the analysis of each textbook:

1. Does the textbook provide a *formal definition* of feedback, and if so, does this definition differentiate between its informative and reinforcing functions?
2. Does the textbook provide *examples* of feedback, and if so, are these presented for the *explicit* purpose of distinguishing between its informative and reinforcing functions?
3. Does the textbook provide examples of feedback that *implicitly acknowledge* both the informative and reinforcing functions of feedback?

The analysis of individual textbooks is provided in Appendix A. A summary of these data and conclusions based upon them are presented in the following section.

Summary and Conclusions

The purpose of this study was to determine whether the authors of communication theory textbooks distinguish between the *informative* and *reinforcing* functions of feedback. Ten communication theory textbooks published between 2000 and 2007 were selected for analysis. Each author’s treatment of the topic of “feedback” was analyzed in terms of three research questions. The results of these analyses are summarized as follows:

Question #1: Does the textbook provide a formal definition of feedback, and if so, does this definition differentiate between its informative and reinforcing functions?

Answer: Five textbooks simply define feedback in terms of a listener’s “response” to a speaker. This definition is general enough to embrace both the informative and reinforcing functions of feedback, however, it does not identify these functions or distinguish between them.

Three textbooks provide a formal definition of feedback in terms of *information*, however, none provides a formal definition in terms of *reinforcement*.

Two textbooks provide very general definitions of both *positive* and *negative* feedback. However, these definitions do not distinguish between positive and negative informative feedback or positive and negative reinforcing feedback.

Three textbooks provide definitions of positive and negative feedback that are consistent with a technically correct definition of

reinforcing feedback; however, they do not employ the term “reinforcement” or any related term to identify this function.

In brief then, of the various formal definitions of feedback provided in the ten theory textbooks, only three books explicitly identify its informative function, and none explicitly identifies its reinforcing function; none points explicitly to differences between the two functions.

Question #2: Does the textbook provide examples or other forms of commentary for the explicit purpose of distinguishing between the informative and reinforcing functions of feedback?

Answer: One textbook explicitly identifies “information” and “influence” as two separate functions of feedback; further, the use of the term influence is consistent with the concept of reinforcement as defined in this paper. Nevertheless, this book did not provide any additional commentary for the purpose of distinguishing between these two functions. None of the other textbooks provided examples or commentary for the purpose of distinguishing between the informative and reinforcing functions of feedback.

Question #3: Does the textbook provide examples or other forms of commentary that *implicitly acknowledge* both the informative and reinforcing functions of feedback?

Answer: All of the textbooks, except the one by Miller, provide examples or other forms of commentary that *implicitly acknowledge* both the informative and reinforcing functions of feedback. However, they do so in the absence of any explicit effort to distinguish between them.

In summation, of the ten textbooks on communication theory selected for this study, only one *explicitly* identifies both the informative and reinforcing functions of feedback, and none distinguishes between these two functions in any substantive way whatsoever. Nevertheless, through the use of examples, nine textbooks *implicitly* distinguish between the informative and reinforcing functions of feedback. These facts suggest that most contemporary authors of communication theory texts tacitly recognize that feedback can function as information and/or reinforcement. However, this tacit understanding does not get translated into an explicit identification and discussions of these functions. Clearly, the authors of communication theory texts will need to provide far more discriminating treatments of the concept of feedback if they are to help explicate the ways in which a listener influences the verbal and nonverbal behaviors of a speaker.

APPENDIX A

The following records, in chronological order, what each of the ten contemporary textbooks on communication theory has to say about feedback. Statements central to the purposes of this study were numbered in the left-hand margin and the *key terms* used to reference feedback functions were emboldened. Structural and/or functional *definitions* of feedback were underlined. Structural or “formal” definitions took a variety of forms that pointed to similarities, differences, negation, opposition, etc. Then, specific *examples* of feedback or feedback functions were placed in brackets. Finally, each textbook’s contribution to our understanding of the concept of feedback was briefly summarized.

Textbook No. 1: Heath R. L., & Bryant, J. (2000). *Human communication theory and research* (2nd ed.).

References to feedback are found in several chapters of this text; the first is as follows:

- (1) Feedback is the interpretation of **information** they [people] receive that helps them to determine whether their strategies are accomplishing their goals. We use the term incorrectly when we say, “Give me some feedback.” Whatever the person says or does at that point can be used as feedback, but it is not feedback. (p. 75)
- (2) [If you shoot a basketball to the hoop, you may sink or miss. If you shoot it too hard (i.e., “throw up a brick”), you are likely to use that feedback to throw the ball easier on the next try. If the ball falls short of the hoop (i.e., “air ball”), you are likely to use that information as feedback to decide to shoot harder. At no point did the ball give you feedback.]
- (3) [If you ask a co-worker to give you some “feedback” on a proposal you are writing, you will decide what to do with the person’s comments. For instance, if the person says, “I think this draft stinks,” will you agree and change it or defend the quality of the draft by ignoring the comment?] See, the comment is not actually feedback. Feedback is what you use to decide what to do. You can ignore the person’s “feedback.” If that is the case, then it was not feedback. (p. 75)

In the above quotation, the first part of underlined statement (1) provides a formal definition of feedback in terms of *information* related to goal achievement. The second part qualifies the use of the term feedback; it states that listener comments do not constitute feedback unless they are *used* by the speaker. Bracketed statements (2) and (3) provide examples that acknowledge the ways in which informative feedback can also *function as reinforcement*; that is, both examples acknowledge that informative feedback can influence an individual’s future performances. Underlined statement (4) reiterates the position that listener comments do not constitute feedback unless they are functionally related to changes in a speaker’s behavior.

The next reference to feedback states:

- (1) Based on the influence of cybernetics, feedback is defined as **information** a

- person (or machine) receives and interprets that allows him or her to determine whether his or her action (such as a message) had the desired effect to achieve a goal, such as inform a receiver. In this sense, feedback is not what person B says that can lead to a correction in what person A says or does to achieve some outcome. Feedback is the interpretation of what is said or done. [For instance,
- (2) person B might respond to a statement by person A by saying, “I don’t understand,” or, “That is a good point.” Either statement might be used as feedback that person A would use to decide what to do or say next. Or the person might change the goal that was being sought.] (p. 75)

Underlined statement (1) provides a second formal definition of feedback in terms of one’s *interpretation of information* related to goal achievement. Bracketed statement, (2), gives two examples of listener comments that might function as feedback. However, the first, “I don’t understand,” takes the *form* of informative feedback whereas the second, “That’s a good point,” takes the *form* of reinforcing feedback. The authors do not explicitly distinguish between informative and reinforcing feedback.

- In an additional chapter, the authors state:
- (1) People employ feedback when they use **information** to decide to continue or
- (2) abandon [their] strategic means or to change their goals. [For example, a person might shoot a free throw so hard that the basketball bounces back from the backboard without touching the rim. The second attempt to shoot the basketball so that it goes through the hoop would be guided by the **information** (feedback) gained from the first. The second attempt might fall short because it was shot too easily. Using **information** gained from the first two attempts, the third shot might be made in such a way that it goes through the hoop.] (p. 132)
- (3) If strategic efforts help people to achieve their goals, these attempts are likely to be repeated. If those strategies are unsuccessful, they will probably be abandoned. That simple premise demonstrates why an understanding of **information** is valuable to efforts to explain and improve the communication process. **Information** acquisition is basic to communication as a **motive**, as a
- (4) crucial element in the process and as an outcome. (p. 132)

In underlined statement (1) feedback is defined once more as information that is *used*; more specifically, information that is used *in relation to goals* or *means* of achieving goals. Bracket statement (2) provides a follow-up example of the ways in which informative feedback can simultaneously have reinforcing effects.

Though not identified as such, underlined statement (3) is actually a definition of reinforcing feedback, i.e., it points out that one’s strategies may be “retained” or “abandoned” based on information about their contributions to goal achievement. Statement (4) further defines informative feedback in terms of its possible functionality, i.e., achievement of an “outcome.”

Textbook #1 conclusions. The authors of this text:

1. Do provide a definition of feedback in terms of one's interpretation and use of *information* related to goal achievement. They do not distinguish between the positive and negative forms of informative feedback.
2. Do not provide a definition of reinforcing feedback or distinguish between its positive and negative forms.
3. Do provide definitions and examples that implicitly acknowledge both the informative and reinforcing functions of feedback.
4. Do not provide examples for the purpose of distinguishing between informative and reinforcing feedback.
6. Do nothing to explicitly distinguish between informative and reinforcing feedback.

Textbook No. 2: Anderson, R., & Ross, V. (2002). *Questions of communication: A practical introduction to theory* (3rd ed.).

- (1) In communication theory, feedback refers to any message from your environment that can help you assess how effective your previous messages were in accomplishing certain goals.
- (2) Good feedback serves as a control mechanism by which a system adapts flexibly within its context. (p. 43)
- (3) [Examples: Grades provide feedback for students, but so can such informal behavior as a teacher's interpersonal responsiveness, attention, friendliness, and perceived annoyance. In addition, students' performance on an exam or assignment provides teachers with feedback on how well they're meeting their goals of helping to create effective learning.] (p. 43)
- (4) Types: **Positive feedback** enhances or reinforces a tendency within a system. **Negative feedback** inhibits or regulates a system tendency by imposing a predetermined desired level or criterion. How do you think grades might function as **positive feedback** for students? How might grades function as **negative feedback**? (p. 43)

Underlined sentence (1) provides a formal definition of feedback in terms of messages that help in "assessing" one's goal achievement (*assessment*, of course, suggests the *informative* function of feedback). Statement (2) defines feedback in terms of a *control mechanism* that helps a system *adapt* to its environment. In the human domain, of course, both information and reinforcement can function as "control mechanisms." The examples in statement (3) imply that feedback can function as information and/or reinforcement. Underlined statement (4) defines positive feedback in terms of a message that ". . . enhances or reinforces a tendency." Negative feedback is defined in terms of a message that ". . . inhibits or regulates a system tendency." These definitions are similar to those that are commonly presented in the literature on reinforcement.

Textbook #2 conclusions. The authors of this text:

1. Do provide a definition of feedback in terms of information related to goal achievement. They do not distinguish between its positive and negative forms.
2. Do not provide a formal definition of reinforcing feedback, but do provide acceptable definitions of its positive and negative forms.
3. Do provide examples or other forms of commentary that implicitly acknowledge both the informative and reinforcing functions of feedback.
4. Do not provide examples for the purpose of distinguishing between informative and reinforcing feedback.
5. Do nothing to explicitly distinguish between informative and reinforcing feedback.

Textbook No. 3: Infante, D., Rancer, A., & Womack, D. (2003). *Building communication theory* (4th ed.).

In this text, the first reference to feedback states:

- (1) Feedback is often called positive or negative. Positive feedback consists of responses perceived as rewarding by the speaker, such as applause or verbal/nonverbal agreement. Negative feedback consists of responses perceived as punishing or not rewarding. In interpersonal or public communication situations frowns or whistles are examples of negative feedback. Even a complete lack of response on the part of the receiver could be perceived as negative feedback, since the source would have no cues by which to gauge the effects of the message produced.
- (2) Thus, without feedback, a source would have no means of assessing how a message was being decoded, and subsequent inaccuracies might never be corrected. Since negative feedback implies that changes should be made, it is especially useful in helping us to send messages more effectively. (pp. 6-7)

In the first underlined section, (1), the authors define *positive feedback* as listener responses *perceived* by the speaker as “rewarding,” and *negative feedback* as listener responses *perceived* by the speaker as “punishing or not rewarding.” These definitions clearly focus on the *reinforcing* function of feedback. Nevertheless, statement (2) focuses on the role feedback in “assessing” how a message has been decoded, and in “correcting errors.” Both assessing and correction of errors suggest the informative function.

Textbook #3 conclusions. The authors of this text:

1. Do not provide definitions of informative or reinforcing feedback, but do implicitly acknowledge both the informative and reinforcing functions.
2. Do provide a definition of positive or negative feedback that pertains to the reinforcing function, but do not label it as such; they do not provide a definition of positive or negative informative feedback.
3. Do not provide examples of feedback.
4. Do nothing to explicitly distinguish between informative and reinforcing feedback.

Textbook No. 4: Baldwin, J. R., Perry, S. D., & Moffitt, M. A. (2004). *Communication theories for everyday life*.

These authors state the following:

(1) Systems “control or regulate” themselves by sending messages to the different parts of the system either to keep them in line or to get them to change (feedback). (p. 31)

(2)

[For an example of a system, suppose you are a member of a sorority or fraternity. A member is “hazing” new recruits to your group, which in most schools is now illegal. Either because your organization disapproves of hazing or because someone was injured in the incident, the organization feels your member is “out of line.” This disrupts the balance (homeostasis) of your system, so the leaders of the sorority or fraternity must decide what to do. They issue a warning (feedback) intended to bring the system back in line with their goal of being an honorable organization in the Greek system.] (p. 31]

Statement (1) provides a very general definition of feedback in terms of its “control” or “regulating” functions. In the follow-up example, (2), controlling or regulating feedback takes the form of a “warning” which is something that occurs in the human domain and can function as *reinforcement*.

Several chapters later the authors provide this additional statement:

(1) When receivers respond verbally and/or nonverbally to a sender’s message, they

(2) are providing feedback. [Speakers often seek feedback and will ask listeners if they understand or agree with their statements. Senders ask questions such as “Do you know what I mean?” and “What do you think about that?” Or the speaker will pause and wait for a response.] These strategies underscore the importance of feedback for clarity in communication. (p. 68)

Statement (1) simply provides a broad definition of feedback as any *verbal or nonverbal response* of a listener. The follow-up example in statement (2) states that a speaker can invite feedback with a statement such as, “Do you know what I mean?” or, “What do you think about that?” The first question takes a form that is likely to invite informative feedback while the second takes a form more likely to invite reinforcing feedback.

Textbook #4 conclusions. The authors of this text:

1. Do provide a general definition of feedback in terms of “verbal” or “nonverbal” responses that “control” or “regulate.”
2. Do not provide a formal definition of either informative or reinforcing feedback or their positive and negative forms.
3. Do not provide examples for the purpose of distinguishing between informative and reinforcing feedback.
4. Do provide an example that implicitly acknowledges both the informative (understanding) and reinforcing (agreement) functions of feedback.
5. Do nothing to explicitly distinguish between informative and reinforcing feedback.

Textbook No. 5: Beck, A., Bennett, P., & Wall, P. (2004). *Communication studies: The essential resource*.

The authors state:

- (1) Feedback is the return flow of messages from receiver to sender. It can be either positive (supporting or agreeing with the message) or negative (criticizing or contradicting the message). (p. 40).

- (2) When two people are engaged in a conversation, they respond continually to each other's statements: [while I recite my tale of woe, you will make regular brief responses, either through changes in your facial expressions or through interjections: "Uh-huh, oh really, well I never, oh your [sic] poor thing, that's terrible."] [Without this kind of feedback, my flow of words will probably dry up; I need to have confirmation that you are still listening and that you understand what I am saying.] (p. 38)

- (4) For both sender and receiver, feedback is vital. Without it, the sender cannot be sure if the message has even been received, still less whether it has been greeted with disagreement, disbelief, misunderstanding or bored complacency. There is no way of knowing which points to labour, nor which are likely to be key issues for future development. For the receiver, on the other hand, feedback is the means by which dialogue can focus on more fruitful areas and skip less interesting matters. (p. 40)

In the glossary of this book, feedback in general is defined as, “. . . the response received by the sender of a message” (p. 325). No other details are provided.

Statement (1) is a footnote that provides another very general definition of feedback, however, it also provides definitions of positive and negative feedback that are consistent with the reinforcing function.

Statement (2) identifies a variety of forms that feedback might take. Those selected show *support* for the speaker and therefore are likely to *function* as positive reinforcers.

In statement (3), the authors implicate both the informative and reinforcing functions of feedback. Specifically, they state that the speaker needs to know “. . . that you understand” (informative function), and needs “. . . confirmation that you are listening” (reinforcing function). Statement (4) also references these two functions. Firstly, it notes that feedback provides *information* as to whether “. . . the message has even been received . . .”; secondly, it notes that feedback can provide “. . . disagreement, disbelief, misunderstanding or complacency . . .” (reinforcing function).

Textbook #5 conclusions. The authors of this text:

1. Do provide a general definition of feedback that can embrace both the informative and reinforcing functions.
2. Do not provide a definition of informative or reinforcing feedback.

3. Do provide a definition of positive and negative feedback that is consistent with the reinforcing function, but do not provide a definition of positive and negative feedback that addresses the informative function.
4. Do not provide examples for the explicit purpose of distinguishing between informative and reinforcing feedback, but provide examples that implicitly acknowledge both of these functions.
5. Do nothing to explicitly distinguish between informative and reinforcing feedback.

Textbook No. 6: Wood, J. T. (2004). *Communication theories in action: An introduction* (3rd ed.).

Wood provides the following treatment of feedback:

- (1) In 1967, Norbert Weiner, an MIT scientist, refined Shannon and Weaver's ideas by adding two new features to their model. First, he emphasized feedback as an essential feature of effective communication. In Weiner's view, feedback was information about past performance that could be used to adjust future activity.
- (2) [For example, if I wrinkle my brow and shake my head when Robbie mentions a trip he's planning to make, that feedback will tell him I'm not pleased with his plan. Based on my feedback, he may adjust what he says next: Perhaps he'll suggest I join him for the trip, propose doing something together before he leaves, or explain why it is important for him to make this particular trip.] (pp. 33-34)

Wood (1) borrows the traditional cyberneticist's definition of feedback which focuses on information related to goal achievement. She then provides an example (2) that implicates the informative function, i.e., "telling him." This example also includes various forms of feedback which typically function as reinforcers, i.e., "wrinkling one's brow" and "shaking one's head" to show displeasure.

Textbook #6 conclusions. The author of this text:

1. Does not provide a general definition of feedback that can embrace both the informative and reinforcing functions.
2. Does provide Weiner's formal definition which treats feedback as information only.
3. Does not provide a formal definition of reinforcing feedback.
4. Does not distinguish between the positive or negative forms of feedback.
5. Does not provide examples for the explicit purpose of distinguishing between informative and reinforcing feedback.
6. Does provide examples that implicitly acknowledge both the informative and reinforcing functions of feedback.
7. Does nothing to explicitly distinguish between informative and reinforcing feedback.

Textbook No. 7: Littlejohn, S. W., & Foss, K. A. (2005). *Theories of human communication* (8th ed.).

Littlejohn and Foss's brief statement about feedback covers a considerable amount of territory:

- (1) Negative feedback loops tend to cancel out diversity and lead to convergence, whereas positive feedback loops tend to create diversity and lead to divergence. Imagine society as a huge system of interacting individuals in which many such loops continually bring about both social order and diversity. (p. 308)

- (2) There are many consequences of feedback loops at work in dynamic social networks. The following line of work, now a classic in the communication field, offers one explanation of how influence and information is disseminated in social systems. (p. 308)

Statement (1) provides a general definition of positive and negative feedback that can apply to both the informative and reinforcing functions. Statement (2) explicitly references the two basic functions of feedback; i.e., “influence” (or reinforcement) and “information” (the material referenced as “. . . The following line of work” is not useful for the purposes of this study. It simply discusses the reinforcing effects of opinion leaders, etc., and does not relate these comments to the concept of feedback).

Textbook #7 conclusions. The authors of this text:

1. Do not provide a definition of informative or reinforcing feedback.
2. Do provide a general definition of positive and negative feedback that can apply to both informative and reinforcing functions.
3. Do make an explicit distinction between “information” and “influence,” but do not provide examples of either informative or reinforcing feedback.
4. Do nothing to explicitly distinguish between informative and reinforcing feedback.

Textbook No. 8: Miller, K. (2005). *Communication theories: Perspectives, processes and contexts* (2nd ed.).

Miller's statements:

- (1) The concept of feedback suggests that behaviors of individuals in a system are interdependent with, and are often the response to, the behavior of others. The interdependence of individual behavior is seen in communication through
- (2) processes of feedback, which can be negative or positive. Positive feedback leads to change or loss of stability in the system whereas negative feedback preserves the status quo of the system. Negative feedback thus keeps the family
- (3) on a steady state [Clearly, this maintenance of a steady state in the system could be either a good thing or a bad thing, depending on the functionality of the system under investigation. For example, in an abusive family, a wife might be beaten every time she strays from her subordinate role by offering an opinion. The beatings (i.e., the **negative feedback**) keep the family on its steady—and violent—course.] (p. 187)

Statement (1) simply defines feedback in general as behavioral responses that can be traced to the behaviors of other. In statement (2), Miller distinguishes between *positive*

and *negative* feedback in terms of their *functional outcomes*, i.e., he notes that positive feedback contributes to change within a system whereas negative feedback contributes to the stability of a system. Both definitions focus on the performance of a system which suggests the reinforcing function. Statement (3) provides an example of the negative type of feedback; “beatings” are identified as a particular form of this type of feedback.

Textbook #8 conclusions. The author of this text:

1. Does define feedback in general as a “. . . response to the behavior of others.”
2. Does not provide definitions of informative or reinforcing feedback.
3. Does provide a general definition of positive and negative feedback that can apply to both informative and reinforcing functions.
4. Does not provide examples for the purpose of distinguishing between informative and reinforcing feedback.
5. Does provide an example that implicitly acknowledges the negatively reinforcing function of feedback, but not the positively reinforcing function.
6. Does nothing to explicitly distinguish between informative and reinforcing feedback.

Textbook No. 9: Griffin, E. M. (2006). *A first look at communication theory* (6th ed.).

The author offers the following:

- (1) MIT scientist Norbert Wiener coined the word *cybernetics* to describe the field of artificial intelligence. The term . . . pictures the way feedback makes information processing possible in our heads. . . . His concept of feedback anchored the cybernetic tradition that regards communication as the link connecting the separate parts of any system, such as a computer system, a family system, an organizational system, or a media system. . . . (p. 23)
- (2) Feedback was not an inherent feature of Shannon and Weaver’s information model; it took other theorists in the cybernetic tradition to introduce concepts of interactivity, power imbalances, and emotional response into communication systems. (p. 25)

Statement (1) identifies feedback with “information processing,” but makes no reference to reinforcement. However, statement (2) states that feedback can entail “power imbalances” and “emotional responses,” terms that are likely to be associated more with reinforcement than information.

Textbook #9 conclusions. The author of this text:

1. Does provide a general definition of feedback in terms of “information processing,” “interactivity,” “power imbalance,” and “emotional responses.” Accordingly, the author implicitly acknowledges both the informative and reinforcing functions of feedback, but does not provide explicit definitions of informative or reinforcing feedback or the positive and negative forms of feedback.

2. Does not provide examples of feedback.
3. Does nothing to explicitly distinguish between informative and reinforcing feedback.

Textbook No. 10: West, R., & Turner, L. H. (2007). *Introducing communication theory: Analysis and application* (3rd ed.).

The authors state:

- (1) One element essential to the interactional model of communication is feedback, or the response to a message. Feedback may be verbal or nonverbal, intentional or unintentional. Feedback also helps communicators to know whether or not their message is being received and the extent to which meaning is achieved. In the interactional model, feedback takes place after a message is received, not during the message itself. (p. 12)
- (2) [To illustrate the critical nature of feedback and the interactional model of communication, consider our opening example of the McLean family. When Eddy's parents find him on the couch drunk, they proceed to tell Eddy how they feel about his behavior. Their outcry prompts Eddy to argue with his parents, who in turn, tell him to leave their house immediately. This interactional sequence shows that there is an alternating nature in the communication between Eddy and his parents. They see his behavior and provide their feedback on it, Eddy listens to their message and responds, then his father sends the final message telling his son to leave. We can take this event further by noting the door slam as one additional feedback behavior in the interaction.] (pp. 12-13)

Statement (1) provides a general definition that characterizes feedback in terms of a “response to a message” that can be “verbal or nonverbal,” “intentional or unintentional.” Statement (2) notes that further feedback helps communicators “to know” about message reception” thereby suggesting the informative function. The follow-up example in statement (3) implicates both the informative and reinforcing functions of feedback. For example, “tell . . . how they feel” implicates the informative function, but, “. . . telling his son to leave” implicates the reinforcing function.

Textbook #10 conclusions. The authors of this text:

1. Do provide a general definition of feedback that can embrace both the informative and reinforcing functions, but do not provide explicit definitions of informative or reinforcing feedback, or of their positive or negative forms.
2. Do not provide examples for the explicit purpose of distinguishing between informative and reinforcing feedback, but do provide examples that implicitly acknowledge both informative and reinforcing functions.
3. Do nothing to explicitly distinguish between informative and reinforcing feedback.

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