

# 33

## Communication Theories and Models

### CHAPTER COVERAGE

- 33.1. Aristotle's Model
- 33.2. Information Theory
- 33.3. Interaction Theory
- 33.4. Transaction Process Theory

There are several models of communication which could be classified as (1) **Linear models**, and (2) **Interpersonal models**. The models falling under the category of linear models include Aristotle's model, Shannon-Weaver Model, and Lasswell's model.

### 33.1. ARISTOTLE'S MODEL

The first step towards the development of a communication model was taken by Aristotle. He developed an easy, simple and elementary model of the communication process. According to Aristotle, in a communication event, there are three main ingredients, namely :

- (i) The Speaker,
- (ii) The Speech, and
- (iii) The Audience.

Subsequently, a number of experts have developed other models of communication which are more complex and dynamic. For example, the Mathematical Theory of Communication developed by C.E. Shannon and W. Weaver, popularly called Shannon-Weaver Model, identified the technical aspects of communication. This model called for measuring the unit of the information transmitted over technical channel.

### 33.2. INFORMATION THEORY

Information theory is a mechanical approach to communication. As opposed to communication theory, this theory deals with information devoid of meaning. In other words, information theory is not interested in the contents of communication;

it concentrates on the fact that *information is communicated both accurately and correctly*. This model does not include feedbacks as the receiver may become the sender of message and the process will get repeated.

The information theory developed separately from the communication theory in 1950. Its components include computer science, data processing, cybernetics etc. Each of these areas have been contributing to information theory. The model contains the essential elements for explaining the human communication process. It identified element of semantics—that meaning lies in people. The degree of difference in meaning between the sender and the receiver is accounted for by noise.

### 33.2.1 Shannon-Weaver's Communication Model

C. Shannon and W. Weaver in their book "*The Mathematical Theory of Communication*" published in 1949 called for measuring the unit of information transmitted over the technical channel. They considered their model as strictly mathematical and identified the technical aspects of communication.

Shannon, an engineer, concentrated on the technical problems of transmitting signals from the one point to another. He considered communication as a mechanistic system consisting of the following five basic elements as shown in Fig: 33.1. They are as follows:

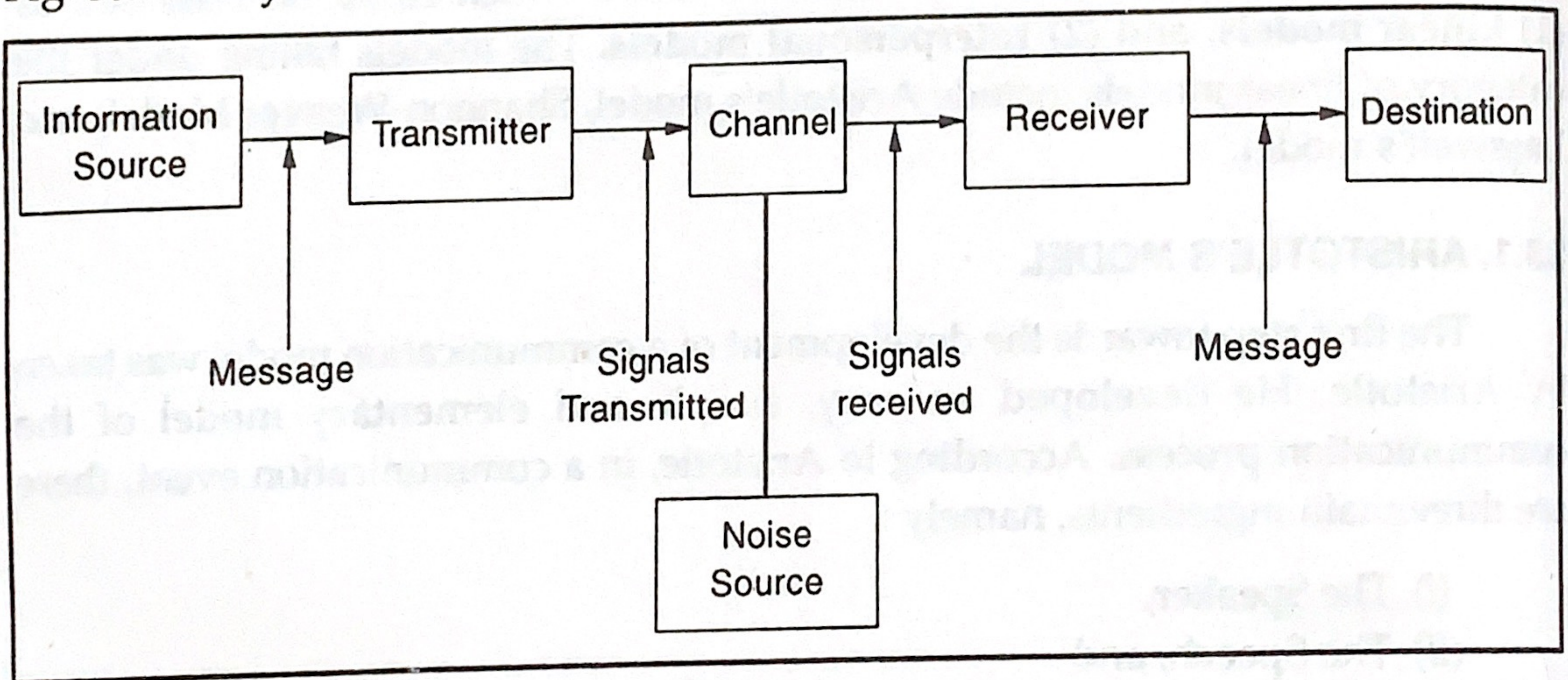


Fig. 33.1 : Shannon and Weaver Model

1. **Information source** or speaker which produces the message.
2. **Transmitter** which converts a message into signals for the purpose of transmission.
3. **Channel** carries signals from transmitter to receiver.
4. **Receiver** who reconstructs the message from the signals.
5. **Destination** i.e., the person or machine to whom the message is intended.

Shannon and Weaver also introduced another component in the model, i.e., the *noise source*. They recognized that communication generally takes place amid noise which interferes with the message in the channel. It is also called *signal noise* because it causes physical interference in communication. Since noise, in the sense

of communication theory, is not necessarily sound, it would be better to call it 'interference'.

The basic concern of Shannon-Weaver Model is How to efficiently transmit message? The receiver should be able to reconstruct the message from signal decimated by noise. Further, there are three levels of communication problems in this model. At level A, there is the technical problem, *i.e.*, how accurately can the symbols of communication be transmitted? At level B the problem is *semantic, i.e.*, how precisely do the transmitted symbols convey the desired meaning? And at level C, the problem is of the *effectiveness, i.e.*, how effectively does the received meaning affect conduct in the desired way? According to Weaver, this Shannon's theory is directed at level A. However it has implication for level B and C.

The other kind of noise *i.e.*, semantic noise is not shown in Fig. If it were, it would be shown in the diagram as an arrow striking the message between the information source and the transmitter. Or it would be shown between the receiver and the destination. The concept of noise refers to the fact that what is meant, is not frequently what is said and what is heard is, frequently not what is understood. "I know, you believe you understand what you think I said but I am not sure you realize that what you heard is not what I meant."

Semantic noise is caused by the fact that we often perceive what we want to perceive, we often produce very revealing messages quite inadvertently, e.g. the dreaded "Freudian slip." It should be noted that semantic noise can occur even when transmission within the physical channel is perfect.

Kirk and Talbot refer to the following three types of noise or distortion of information :

(1) **Stretch Distortion.** In stretch distortion, information is systematically changed. It can be corrected if one knows the rules by which it is altered. If one knows that a certain person always lies in certain circumstances, he can easily correct the distortion.

(2) **Fog Distortion.** In this kind of distortion, a part of the message is lost by random or 'white' noise. (White noise is what your air conditioner or shower sound like). This is very difficult to correct, we often hear such expressions "you know I can't hear you when the water is running".

(3) **Mirage Distortion.** In this kind of distortion, the message appears to be something it is not. If a sentence is mistaken, it can cause havoc, e.g., if instead of hearing "I really hate to be going" one hears 'I really have to be going" it would create confusion. The antidote is redundancy as well as information gathered through another channel.

### 33.2.2 Lasswell's Model

The communication model of Harold D. Lasswell, in its broader analysis, gives rise to four basic and important questions. They are who? What? Whom?

Which ? The behavioural aspects of the sender in the communication process is well-established by Lasswell. Lasswell's model indicates the major elements in the process by posing some questions dealing with the act of communication. They are :

Who ?

Says What ?

In What Channel ?

To Whom ?

With What Effect ?

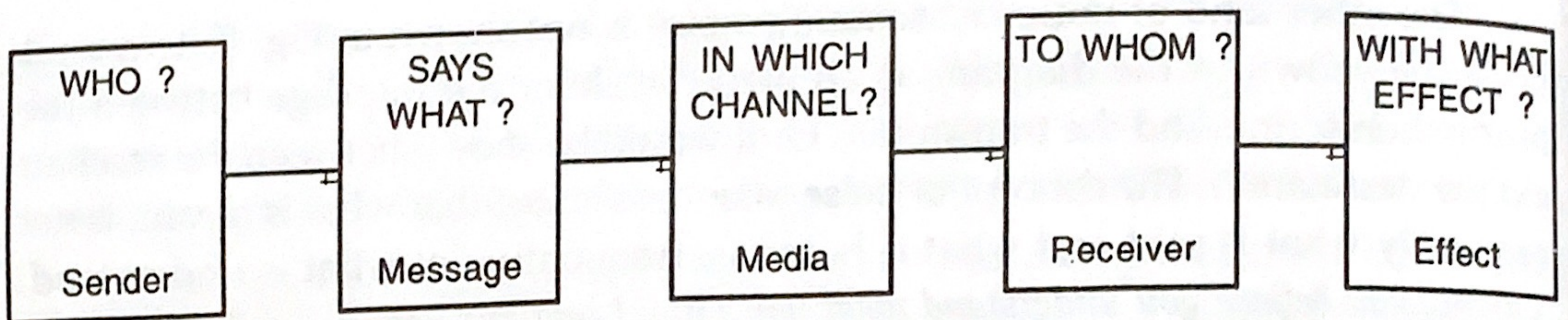


Fig. 33.2. Lasswell's Model.

### 1. Who ?

Who wants to communicate ? What is the purpose of the communication ? Is it to persuade or to inform ? Is any particular action required ?

### 2. What ?

What is it we want to communicate ? An order, an idea, an attitude or a feeling ? What form of words or possible actions best meets the situation ?

### 3. How ?

How are we going to communicate ? In what form will the communication get home the message fastest ? What impact will a particular form have on the recipient ?

### 4. Who ?

Is there a key to the communication situation ? How does he feel about me, about this situation ?

### 5. When ?

Finally, when ? When is the right time to get across the message ? When the receiver is likely to give it the most attention ? Is timing can be critical to the success of the communication ?

In this model, Lasswell covers the five elements in the process by putting the above questions. The model emphasizes on the effect of communication and the

response of the receivers. The behavioural aspects of the sender is the important element in the process.

### 33.2.3 Limitations of Linear Models

The various models discussed so far are called linear models as they do not consider the response or reply from the receiver of the message. Linear models have some limitations because they contain almost some common elements of communication process. But actually effective communication is cyclical or circular in nature. In the circular system of communication process, the element of feedback is introduced. All linear models may undergo change if the element of feedback is introduced.

A linear model is known as one way communication. There is no provision to know the response of the receiver of the message.

### 33.3. INTERACTION THEORY (Berlo Model)

David K. Berlo is known for introducing dynamic process model of communication. In this model, he identified the essential elements of communication and also other factors affecting them such as the five senses. However, the model does not consider verbal and non-verbal stimuli.

Berlo Model is the first widely accepted model which presented communication as a dynamic, interactive process. In the words of Berlo, "If we accept the concept of process, we view events and relationships as dynamic, on-going, ever-changing, continuous. When we label something as a process, we also mean that it does not have a beginning, an end, or a fixed sequence of events. The ingredients within a process interact; each affects all the others".<sup>1</sup>

Berlo's model incorporated the four basic concepts, namely, (i) Source (S); (ii) Message (M); (iii) Channel (C); and (iv) Receiver (R). This is why it is also called SMCR model. All the concepts are interrelated. For example, the terms 'Source' and 'Receiver' suggest as if one person acts as a source while the other acts as receiver. In fact everyone acts as both, usually simultaneously. The significance of these elements is explained below:

(i) **Source.** In order to determine the effectiveness of the 'Source' we should know the following things about him. (a) His communication skills (b) His attitude (c) His knowledge (d) His social and cultural context.

Is the 'source' literate? Does he have a command over language? What is his attitude towards the receiver? Thirdly, what is his level of knowledge, does he know the subject matter. Lastly, what are the roles and norms that shape his behaviour? Does he speak as a member of a group; religious, political, or commercial?

1. David K. Berlo, *The Process of Communication*, New York, Holt, Rinehart and Winston, 1960, p. 24).

Does he belong to a highly advanced culture or he comes from some primitive tribe?

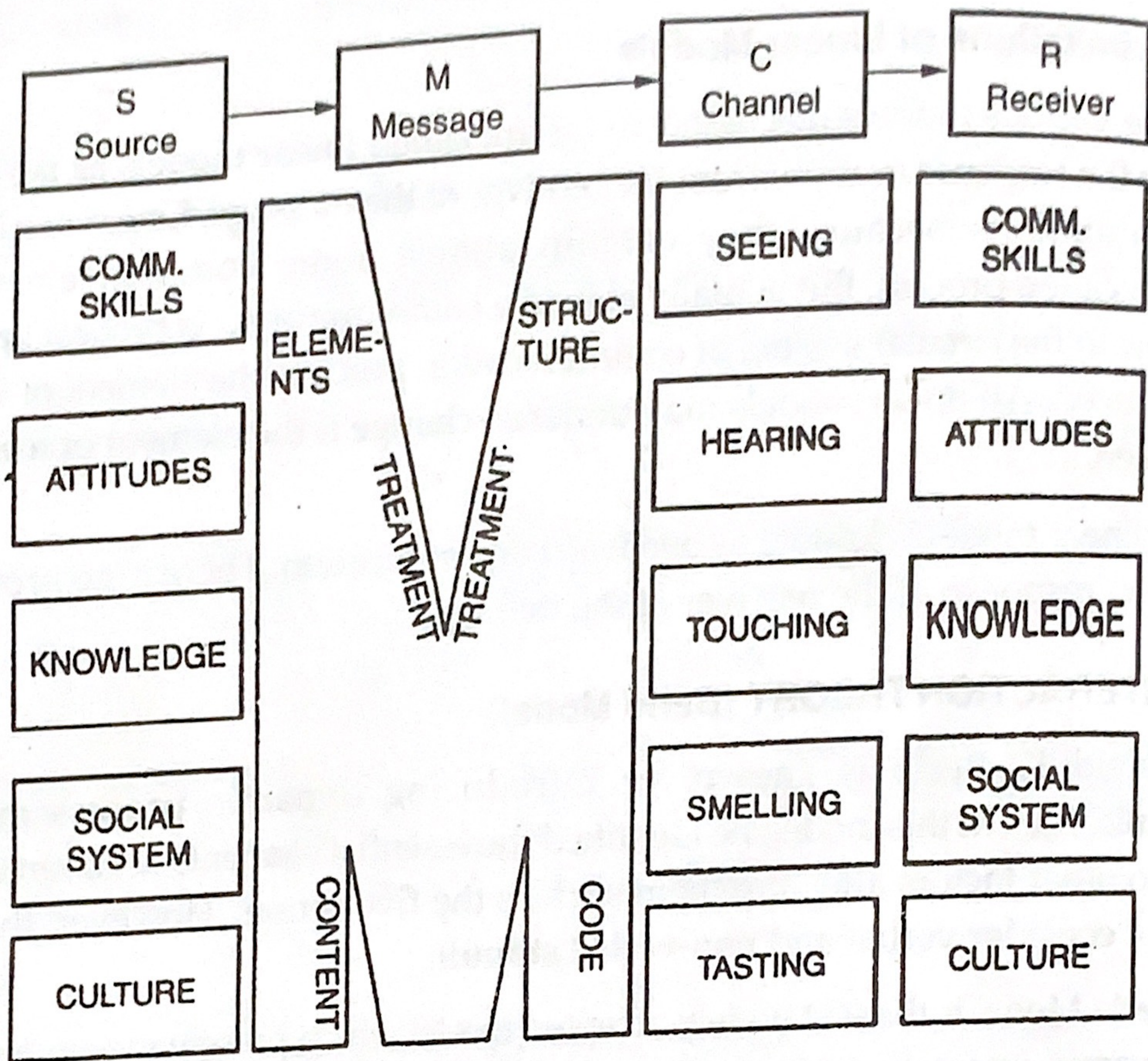


Fig. 33.3. Berlo's SMCR Model

Source : David K. Berlo, *The Process of Communication*, New York, Holt, Rinehart and Wintson, 1960, p.72.

(ii) **Message.** A message contains content or matter. It appears in some language form or in picture form. The source selects contents or codes and then weaves them into his style or his tone. This material can be analysed on different levels. At each level elements are separated. Then these elements are organised into structures. They become elements at the next highest level of analysis e.g. English code has letters for elements. They combine into words. At the next highest level, words become elements which in turn become sentence.

(iii) **Channel.** Channel stands for the medium through which the message reaches the receiver. It may be natural, one of the senses—seeing, hearing, touching smelling and tasting. The channel may also be artificial such as television, radio or newspaper. One implication of this model is that more than one channel may be used at once. These channels collectively affect the communication process.

(iv) **Receiver.** The receiver, too, like the source has skill, attitude, knowledge and cultural context. Each of these contributes to his capacity as a receiver. If the receiver and the source have positive attitudes towards the topic, communication becomes easy. If either the source or his receiver has false assumptions about the other, the stage is set for a breakdown in communication.

The international or interpersonal model of communication may be further elaborated by listing the following elements in the process of communication.

- (1) Message or idea or stimulus, (2) Sender or transmitter or communicator, (3) Encoding, (4) Channel, (5) Medium, (6) Receiver, (7) Decoding, (8) Action or behaviour change, (9) Feedback.

Transmitting or sending the message is only half of the process of communication; the person who carries out this procedure is the transmitter or communicator. When the message reaches, the receiver *decode* the words or symbols into thoughts to understand the message. The process of decoding is the reverse of the process of encoding. If the encoder and the decoder have a common field of experience, the receiver will understand the message more easily in the way that the sender wants. Both the parties have to take active part in the process of communication.

### 33.3.1 Role of Feedback in Interaction Theory

The interpersonal or interactional model of communication is also called "circular" or "cyclical" model. It introduces the element of 'feedback' which was absent in the linear models. Feedback with reference to the communication process means interaction or interface with another person who is the receiver of the message. The purpose of feedback is to measure and evaluate the message received by the receiver and to plan for future communication. Thus, feedback may result in revision or alteration of the original message or sending altogether a new message.

Feedback makes the process of communication circular or cyclical rather than linear. The interpersonal process of communication demands that the sender must know the receiver's reaction, response or behaviour of the receiver on the message. This is possible only with the introduction of the last but the most important element of communication, i.e., feedback. In other words, it is necessary to have interaction between the sender and the receiver. It is the interaction which facilitates the return information called feedback. This may be effected by the words, signals or behavioural change. By this, the cycle or circular flow of communication is complete. This is two-way communication or inter-personal or interactional model.

### 33.3.2 Schramm Model

According to this model, there are two parties in every communication situation, the sender (source) and the receiver (destination) who interact within a common frame of reference. There can be no effective communication without a common background, purpose and interest.

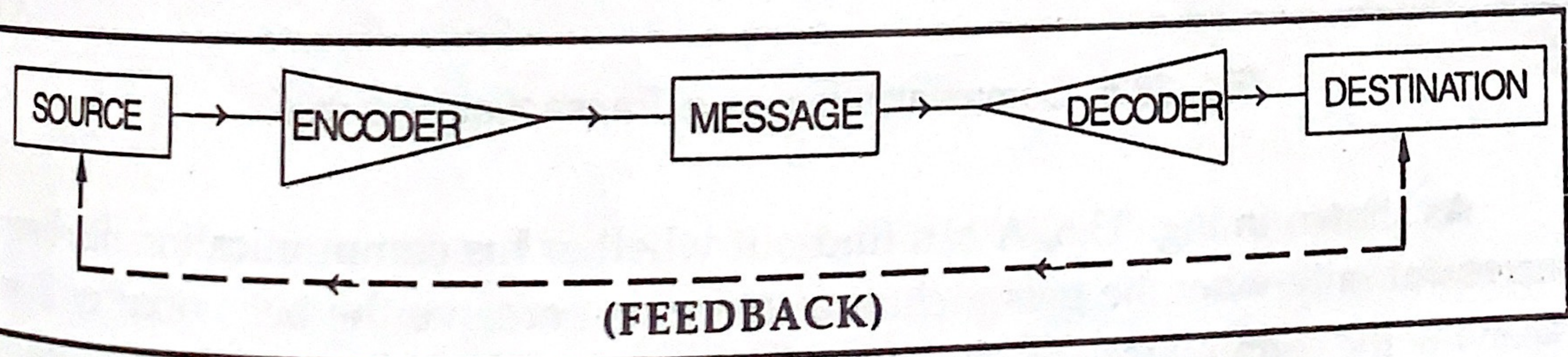


Fig. 33.4. Schramm Model

**Source or Sender.** It is the source or sender who initiates communication.

**Message.** A message is what is being communicated from the sender to the receiver. Message is the life time of the whole communication process. To encode a message, relevant symbols are selected and arranged into a pattern to convey meaning.

**Decoder.** Decode is a scientific word which means to know the hidden meaning. The receiver decodes the message into an idea and interprets according to his understanding, to obtain its meaning. The work of decoder is just the opposite of an encoder.

**Destination or Receiver.** The person to whom the message is directed represents the destination of the message. It is the receiver who decodes the message and produces appropriate response or feedback.

The response may be immediate or deferred, favourable or unfavourable. Nonetheless, feedback is essential to make communication a two-way process.

### 33.4 TRANSACTION PROCESS THEORY

Transaction is a psychological term which means *social interaction between two persons in a face to face situation*. Here both the persons participate in communication simultaneously. Modern communication theorists consider communication as a transaction process. The prefix *trans*, meaning mutually and reciprocally, is stressed instead of *inter*, meaning between. These theorists state that "all persons are engaged in sending (encoding) and receiving (decoding) messages simultaneously. Each person is constantly sharing the encoding and decoding process, and each person is affecting the other. In other words, transaction theory consider communication as a dynamic interpersonal process under which both the parties share information and influence each other. Feedback is very crucial in the communication process as shown in Fig. 33.5.

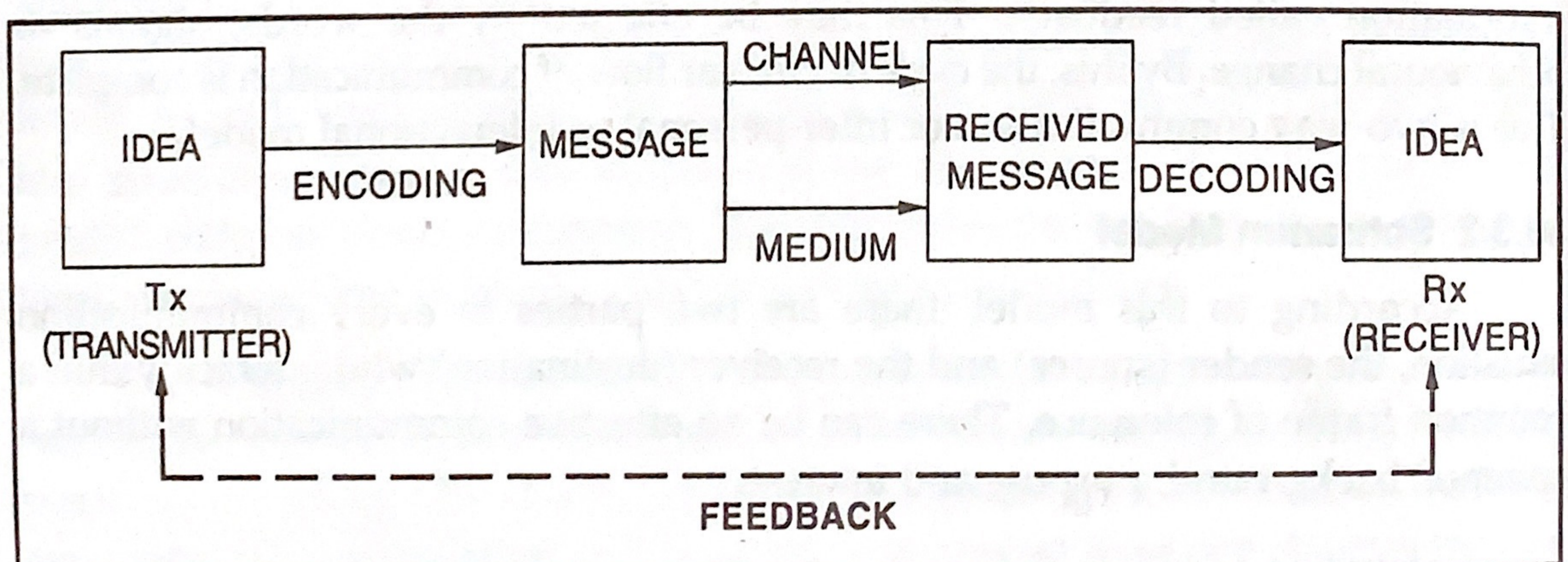


Fig. 33.5. Communication as a Transaction Process

As shown in Fig. 33.6, A can find out whether his communication has been successful only when he gets a chance to see or perceive the behaviour of B on receiving the communication. This return information called *feedback* may come in words, signs or behaviour. When the message is transmitted, received and acted



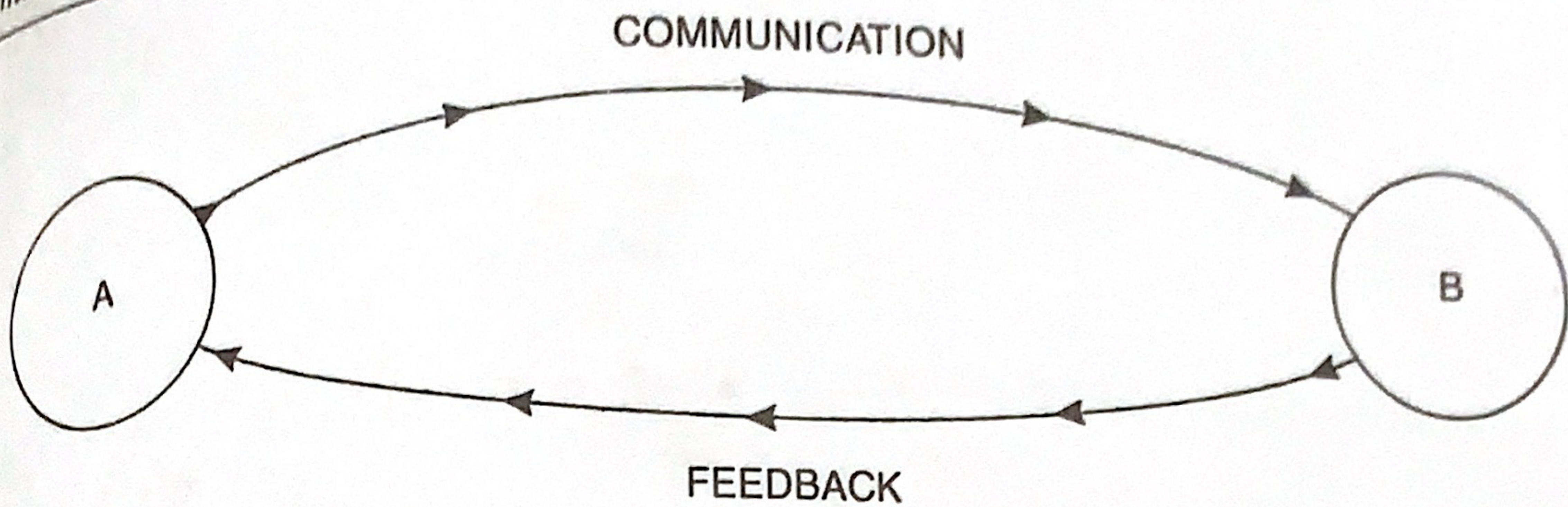


Fig. 33.6. Two-way Transactional Communication

upon, and the return information is got by the A, the cycle of communication is complete. But transaction between A and B continues until the purpose of communication is achieved. For instance, B has a query or suggestion for A, he would communicate the same through feedback which involves decoding by A. Again A will send feedback to B to provide answer to the query or suggestion. Thus, circular flow of information is not only interactional but also continuous.

The transactional theory of communication expects response from the receiver, action on the message or behaviour change. It may take the form of action or reply or behaviour in a particular way. Thus, interaction facilitates revision or alteration of original message or planning for future communication.

### REVIEW QUESTIONS

1. Briefly discuss the various models of communication.
2. Discuss the salient features of Shannon-Weaver's communication Model.
3. Describe the contribution of information theory to the understanding of various elements of communication.
4. Explain Lasswell's Model of Communication.
5. Examine the significance of Interaction Theory by explaining the Berlo's Model of Communication.
6. Describe the basic concepts of communication given by Berlo's Model.
7. Explain the interactional process model of communication.
8. What is two-way communication? Explain with the help of a diagram.
9. What are the implications of Schramm Model of communication.
10. What is the difference between an interaction and a transaction? Briefly explain the transaction process theory.
11. Write short notes on the following :
  - (i) Shannon and Weaver's Model
  - (ii) Berlo's-SMCR Communication Model
  - (iii) Schramm's Communication Model