

2 OTHER MODELS

In this chapter I intend to take a number of other process models of communication in order to illustrate the range of this approach. The first, Gerbner's, is like Shannon and Weaver's in that it claims to be universally applicable: it can explain any example of communication, and in particular draws attention to those key elements that are common to each and every act of communication. We shall then look at some models with more specific and limited claims. Lasswell takes the basic shape of Shannon and Weaver's model, verbalizes it, and then applies it specifically to the mass media. Newcomb breaks with this approach by giving us a new triangular shape for a model, and by referring it mainly to interpersonal or social communication. Westley and MacLean bring this model back towards the more familiar linear shape when they develop it for application to the mass media. Finally we look at Jakobson's model, which can be seen as a bridge between the process and semiotic models of communication.

Gerbner's model (1956)

George Gerbner, now Professor and Head of the Annenberg School of Communications, in the University of Pennsylvania, produced an attempt at a general-purpose model of communication. It was considerably more complex than Shannon and Weaver's but still took their linear process model as its skeleton. The main advances over their model, however, are two: it relates the message to the 'reality' that it is 'about' and thus enables us to approach questions of perception and meaning, and it sees the communication process as consisting of two alternating dimensions—the

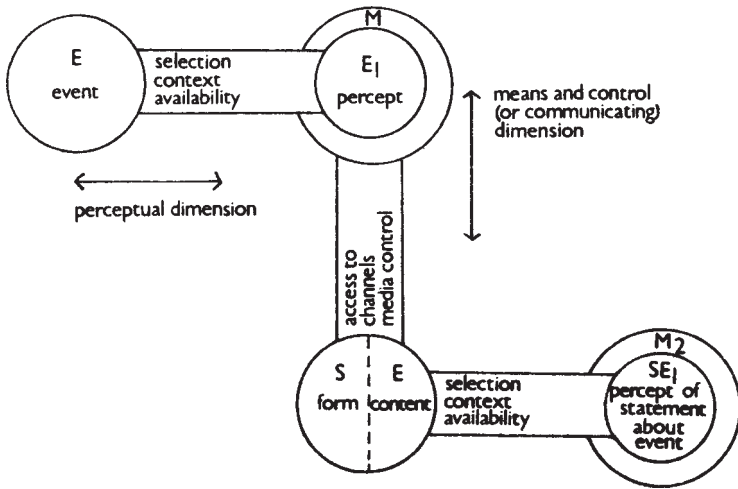


Figure 4 *Gerbner's model (modified)*

perceptual or receptive, and the communicating or means and control dimension. The main elements of Gerbner's model are shown in figure 4.

Horizontal dimension

The process begins with an event E, something in external reality which is perceived by M (and M can be a human or a machine such as a camera or a microphone). M's perception of E is a percept E₁. This is the perceptual dimension at the start of the process. The relationship between E and E₁ involves selection, in that M cannot possibly perceive the whole complexity of E. If M is a machine, the selection is determined by its engineering, its physical capacities. If M is a human, however, the selection is more complex. Human perception is not a simple reception of stimuli, but is a process of interaction or negotiation. What happens is that we try to match the external stimuli with internal patterns of thought or concepts. When this match has been made, we have perceived something, we have given it meaning. So 'meaning' in this sense derives from the matching of external stimuli with internal concepts. Consider what happens if we fail to hear a word clearly, or cannot decipher someone's handwriting. Or think of the visual puzzles of photographs of familiar objects taken from unfamiliar angles or in unfamiliar close up; once the matching or recognition has occurred, the photograph is easily perceived for what it is. Until this moment, we are in a state of

frustration, for, although we can see the tones and shapes of the photograph, we cannot say we perceive it yet, for perception always involves the drive to understand and organize. Failing to see meaning in what we perceive puts us into a state of disorientation.

This matching is controlled by our culture, in that our internal concepts or patterns of thought have developed as a result of our cultural experience. This means that people of different cultures will perceive reality differently. Perception, then, is not just a psychological process within the individual; it is also a matter of culture.

Vertical dimension

We now move to the second stage and into the vertical dimension. This is when the percept E is converted into a signal about E , or to use Gerbner's code, SE . This is what we normally call a message, that is a signal or statement about the event. The circle representing this message is divided into two; S refers to it as a signal, the form that it takes, and E refers to its content. It is clear that a given content or E can be communicated in a number of different ways—there are a number of potential S s to choose from. Finding the best S for the given E is one of the crucial concerns of the communicator. It is important to remember that SE is a unified concept, not two separate areas brought together, in that the chosen S will obviously affect the presentation of E —the relationship between form and content is dynamic and interactive. Content is not simply conveyed by form, as in what I.A.Richards disparagingly calls the 'vulgar packaging theory of communication'.

Richards uses this colourful phrase to pour scorn on communication theory. For him, Shannon and Weaver's model implies that there is a core message that exists independently. This is then encoded; that is, it is wrapped up in language like a parcel for transmission. The receiver decodes it, or unwraps the packaging and reveals the core message. The fallacy for him is the idea that a message can exist before it is articulated, or 'encoded'. Articulation is a creative process: before it there exists only the drive, the need to articulate, not a pre-existing idea or content that then has to be encoded. In other words, there is no content before form, and the attempt to find a difference between form and content is in itself a very doubtful exercise.

In this vertical or communicating dimension, selection is as important as it is in the horizontal. First there is the selection of the 'means'—the medium and channel of communication. Then there is selection from within the percept E_1 . Just as E_1 can never be a complete and

comprehensive response to E, so too a signal about E¹ can never in its turn attain completeness or comprehensiveness. Selection and distortion must occur.

Access: basic concept

This dimension also contains the concept of access to the media and channels of communication. Who has access to the mass media in particular is currently a burning issue in the debate on the relationship of television and society. The horizontal dimension of this model tells us that television's E¹ must be a selection of E, so who makes the selection and whose picture¹ of the world is transmitted as SE is obviously of prime importance. Trade unions claim, with some justification, that in its handling of industrial news, television always presents a middle-class, management-inclined version. This is not necessarily deliberate, but may be explained by the fact that television personnel are normally closer in class, culture, and educational background to the managers than they are to the workers, and therefore their E¹ will naturally involve the same sort of selection of E as would the managers¹.

Access: further implications

Access to the media is a means of exerting power and social control. This is widely believed of the mass media: to find illustrations we have only to look at the relationship between authoritarian governments or dictators and their media, or to see how one of the first targets of successful revolutionary forces is the national radio station. But it is also true in interpersonal communication: authoritarian personalities or teachers will attempt to control the access of others to the channels of communication: that is, they will attempt to limit the amount that others talk. The Victorian father not allowing his children to speak unless spoken to at the dinner table was acting in precisely the same way as the modern totalitarian government allowing only 'official' versions of events on its television screens.

The question of the similarity between democracy and access to the mass media, and type of human relationship and access to the interpersonal channels can be a stimulating one to explore further.

For the third stage of the process, then, we revert to the horizontal dimension. But here, of course, what is being perceived by the receiver, M², is not an event E, but a signal or statement about an event, or SE. The same processes as we outlined in stage 1 are involved and it is

perhaps worth re-emphasizing here that the meaning of the message is not 'contained' in the message itself, but is the result of an interaction or negotiation between the receiver and the message. M_2 brings to SE_1 a set of needs and concepts derived from his or her culture² or subculture and in so far as s/he can relate SE_1 to them so, we can say, s/he finds meaning in the message. The message itself should be seen as a potential of many meanings. This potential is never completely realized and the form it takes is not determined until interaction or negotiation occurs between M_2 and SE_1 : the resulting meaning is SE_1 .

Availability: basic concept

A factor in the horizontal dimension that is the equivalent of 'access' in the vertical is that of 'availability'. Like selectivity, it helps to determine what is actually perceived. It is another form of selectivity, but in this case the selection is not performed by the perceiver but by the communicator. What the communicator selects is how, and therefore to whom, the message is to be made available. An example at the interpersonal level would be when parents use long words, or sometimes spell words out when talking in front of their young children about something they do not wish them to understand. The television company's policy of confining programmes containing sex and violence to after 9.00 p.m. is a way of limiting their availability as was the Soviet government's policy of publishing certain books with very small print runs, so that they would be available only in major libraries, and thus to a restricted readership.

Availability: further implications

Perhaps the most significant increase in availability has been the result of the development of broadcasting. Before radio, access to information was confined to the literate. The ability to read had been necessarily and traditionally confined to the educated minority, who thus controlled the flow of information to the uneducated majority. Information, as we have seen, is power, and thus literacy was a vital way of exerting social control. The spread of universal education was accompanied by widespread fears about 'educating the working classes out of their natural place in society' or 'giving them ideas above their station'. The early socialists and trade unionists saw the education of the workers, particularly the improvement of literacy, as a necessary base for the development of a socialist society. Even today, when education is universal

in our society, and literacy almost so, it is still the educated middle classes who turn naturally to the written word to learn new information. It is these classes who value the power of the written word to stimulate thought and imagination and who most use its ability to offer escapism and relaxation.

Radio and television, and to a lesser extent the cinema, have, for the first time in our history, made information directly available to the non-literate, and thus are potentially major agents of democracy. Radio is particularly important in this, for cheapness of both the transmitters and receivers widens its availability. The desire of developing countries to control their radio output is significant, for the democratizing potential of radio is directly linked to the access allowed to it. Third World governments who control access to their mass media often argue that their politically unsophisticated people cannot handle the flow of frequently contradictory information that results from the freer access to the media in western democracies. Access and availability are two sides of the same coin.

The model extended

The model allows multiple extensions, and enables us to include human and mechanical agents in the process. For instance, Gerbner models a telephone conversation and, at the same time, illustrates his model's basic similarity to Shannon and Weaver's (see figure 5).

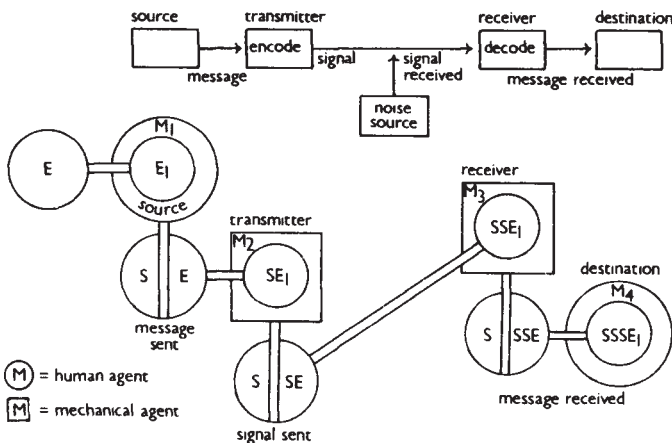


Figure 5 *Comparison between Shannon and Weaver's model (top) and Gerbner's (bottom)*

Model and meaning

Gerbner's basic model is the triangular relationship between event E, percept of event E, and statement about event SE. Meaning is to be found primarily in this relationship: indeed, in one later variant of his model Gerbner links E to SE with an arrow labelled 'truth quality'. But his extension of his model to include M, the receiver, does allow us to add the receiver's percept of the message to these factors that determine the meaning.

But, for all its elaboration, Gerbner's model is still just an imaginative development of that of Shannon and Weaver. It defines communication as the transmission of messages, and although it looks beyond the process itself, outside to E, and thus raises the question of meaning, it never addresses itself directly to the problems of how meaning is generated. It takes S, the form of the message or the codes used, for granted, whereas the proponents of the semiotic school would find this the heart of the matter. They would also argue that Gerbner is wrong to assume that all the horizontal processes are similar: our perception of a message is not the same as our perception of an event. We do not respond to a film of the villain being gunned down by the hero in the same way as we would if we were witnesses to the real-life event. A message is structured or encoded in a way that a raw event is not, and thus it directs our response more actively.

Gerbner's later work, particularly his studies on the portrayal of violence on television, shows that he is aware of these deficiencies in his model, and indeed Gerbner is the one major authority whose work comes closest to combining the two approaches to the study of communication.

Lasswell's model (1948)

Lasswell has given us another widely quoted early model. His, though, is specifically one of mass communication. He argues that to understand the processes of mass communication we need to study each of the stages in his model:

Who
Says what
In which channel
To whom
With what effect?

This is a verbal version of Shannon and Weaver's original model. It is

still linear: it sees communication as the transmission of messages: it raises the issue of 'effect' rather than meaning. 'Effect' implies an observable and measurable change in the receiver that is caused by identifiable elements in the process. Changing one of these elements will change the effect: we can change the encoder, we can change the message, we can change the channel: each one of these changes should produce the appropriate change in the effect. Most mass-communication research has implicitly followed this model. The work on institutions and their processes, on the producers of communication, on the audience and how it is affected, clearly derives from a process-based linear model.

Newcomb's model (1953)

But not all of these models are linear. Newcomb's is one that introduces us to a fundamentally different shape. It is triangular (see figure 6). Its main significance, however, lies in the fact that it is the first of our models to introduce the role of communication in a society or a social relationship. For Newcomb this role is simple—it is to maintain equilibrium within the social system. The way the model works is this. A and B are communicator and receiver; they may be individuals, or management and union, or government and people. X is part of their social environment. ABX is a system, which means that its internal relations are interdependent: if A changes, B and X will change as well; or if A changes her or his relationship to X, B will have to change his or her relationship either with X or with A.

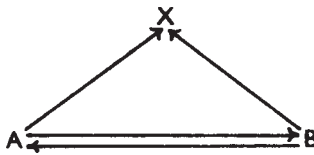


Figure 6 *Schematic illustration of the minimal ABX system*

Notes

The minimal components of the ABX system are as follows:

1. A's orientation towards X, including both attitude towards X as an object to be approached or avoided (characterized by sign and intensity) and cognitive attributes (beliefs and cognitive structuring).
2. A's orientation towards B, in exactly the same sense. (To avoid confusing terms, we shall speak of positive and negative *attraction* towards A or B as persons, and of favourable and unfavourable *attitudes* towards X.)
3. B's orientation towards X.
4. B's orientation towards A.

If A and B are friends, and X is something or someone known to both of them, it will be important that A and B have similar attitudes to X. If they do, the system will be in equilibrium. But if A likes X and B does not, then A and B will be under pressure to communicate until the two friends arrive at broadly similar attitudes to X. The more important a place X has in their social environment, the more urgent will be their drive to share an orientation towards him or it. Of course, X may not be a thing or a person: it may be any part of their shared environment. A may be the government, B the TUC, and X pay policy: in this case we can see, to oversimplify for the sake of clarity, that a Labour government (A) and the TUC (B), who in theory 'like' each other, will be under pressure to hold frequent meetings to try and agree on X, the pay policy. But if A is a Tory government who is not 'friends' with B, the TUC, there will be less pressure for them to agree on X. If the AB relationship is not one of 'liking' they can differ over X: the system is still in equilibrium.

Another example of the way equilibrium increases the need to communicate can be seen when X changes. Immediately A and B need to communicate to establish their co-orientation to the new X. I took part in a small study of people's reactions to the news of Harold Wilson's resignation as Prime Minister. Their normal reaction was immediately to talk about it to find out what their friends thought, so that they could quickly arrive at a common orientation towards his successor. In time of war, people's dependence on the media is increased, and so too is the government's use of the media. This is because the war, X, is not only of crucial importance but is also constantly changing. So government and people (A and B) need to be in constant communication via the mass media.

This model assumes, though does not explicitly state, that people need information. In a democracy information is usually regarded as a right, but it is not always realized that information is also a necessity. Without it we cannot feel part of a society. We must have adequate information about our social environment in order both to know how to react to it and to identify in our reaction factors that we can share with the fellow members of our peer group, subculture, or culture.

Westley and MacLean's model (1957)

This social need for information underlies Westley and MacLean's extension of Newcomb's model (see figures 7 and 8). They adopt it specifically for the mass media. The root of this is clearly Newcomb's

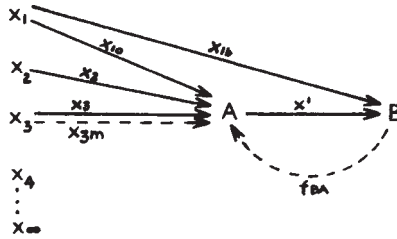


Figure 7 *The basic communication model*

Note

The X s are selected and abstracted by communicator A and transmitted as a message (X') to B, who may or may not have part or all of the X s in his or her own sensory field (X_{ib}). Either purposively or non-purposively B transmits feedback (f_{BA}) to A.

ABX, but Westley and MacLean have made two fundamental changes. They have introduced a new element, C, which is the editorial-communicating function: that is, it is the process of deciding what and how to communicate. They have also started to stretch the model so that it is beginning to return to the familiar linear shape of the process-centred models with which we started. X is now nearer A than B, and the arrows are one-way. A is becoming closer to the encoder of Shannon and Weaver, and C has some elements of the transmitter. The fragmentation of X to show its multifarious nature is a less significant, but useful, modification. When Westley and MacLean apply their model specifically to mass communication they stretch it even further away from Newcomb's triangle (see figure 9). A may be seen as the reporter

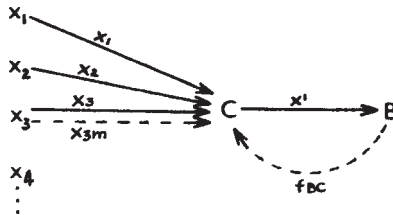


Figure 8 *The addition of an editorial function*

Note

What X s B receives may be owing to selected abstractions transmitted by a non-purposive encoder (C), acting for B and thus extending B's environment. C's selections are necessarily based in part on feedback (F_{BC}) from B.

who sends in a story to C, his or her paper/radio/television newsroom. The editorial and publishing/broadcasting process (which are contained within C) then work on and transmit this story to B, the audience. In this model B has lost any direct or immediate experience of X, as he or she has lost a direct relationship with A.

Westley and MacLean claim that the mass media extend the social environment to which B needs to relate and also provide the means by which that relationship or orientation is performed. They maintain Newcomb's idea that the need to maintain a shared orientation towards X is a motive for communication, and they allow for restricted opportunities for feedback. But they have crucially shifted the balance of Newcomb's system. A and C now play dominant roles. B is very much at their mercy. The mass society in which we live has inevitably enlarged the social environment to which we need to orientate ourselves. So B's need for information and orientation has increased, but the means of satisfying this need have been restricted: the mass media are the only means available. He or she becomes, in the logical extension of this model, totally dependent upon the mass media.

This dependency model fails to take account of the relationship between the mass media and the other means we have of orientating ourselves to our social environment: these include the family, work mates, friends, school, the church, trade unions, and all the other formal and informal networks of relationships through which we fit into our society. We are not as dependent upon the media as this model implies.

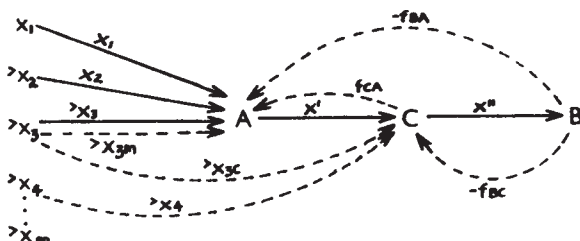


Figure 9 *The mass-communication model*

Note

The messages C transmits to B (x'') represent his selections from both messages to him from A's (x') and C's selections and abstractions from x s in his own sensory field (x_{sc}, x_s), which may or may not be x s in A's field. Feedback not only moves from B to A (f_{BA}) and from B to C (f_{BC}) but also from C to A (f_{CA}).

Jakobson's model (1960)

Jakobson's has similarities with both the linear and the triangular models. But he is a linguist, and as such is interested in matters like meaning and the internal structure of the message. He thus bridges the gap between the process and semiotic schools. His model is a double one. He starts by modelling the *constitutive factors* in an act of communication. These are the six factors that must be present for communication to be possible. He then models the functions that this act of communication performs for each factor.

He starts on a familiar linear base. An *addresser* sends a *message* to an *addressee*. He recognizes that this message must refer to something other than itself. This he calls the *context*: this gives the third point of the triangle whose other two points are the addresser and the addressee. So far, so familiar. He then adds two other factors: one is *contact*, by which he means the physical channel and psychological connections between the addresser and the addressee; the other, final factor is a *code*, a shared meaning system by which the message is structured. He visualizes his model as figure 10.

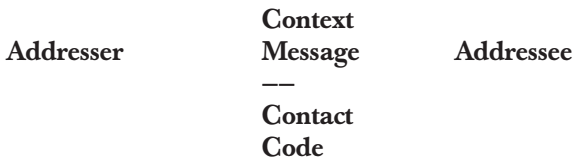


Figure 10 *The constitutive factors of communication*

Each of these factors, he argues, determines a different function of language, and in each act of communication we can find a hierarchy of functions. Jakobson produces an identically structured model to explain the six functions (each function occupies the same place in the model as the factor to which it refers). This is shown in figure 11.

The *emotive* function describes the relationship of the message to the addresser: we often use the word 'expressive' to refer to it. The message's emotive function is to communicate the addresser's emotions, attitudes,

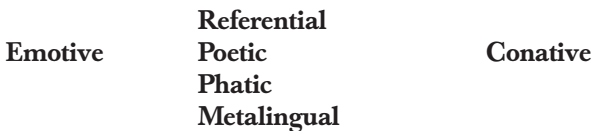


Figure 11 *The functions of communication*

status, class; all those elements that make the message uniquely personal. In some messages, such as love poetry, this emotive function is paramount. In others, such as news reporting, it is repressed. At the other end of the process is the *conative* function. This refers to the effect of the message on the addressee. In commands or propaganda, this function assumes paramount importance; in other types of communication it is relegated to a lower priority. The *referential* function, the 'reality orientation' of the message, is clearly of top priority in objective, factual communication. This is communication that is concerned to be 'true' or factually accurate. These three are obvious, common-sense functions, performed in varying degrees by all acts of communication, and they correspond fairly closely to the A, B, and X of Newcomb.

The next three functions may appear less familiar at first sight, though one of them, the phatic, has been discussed in different terms already. The *phatic* function is to keep the channels of communication open; it is to maintain the relationship between addresser and addressee: it is to confirm that communication is taking place. It is thus orientated towards the contact factor, the physical and psychological connections that must exist. It is performed, in other words, by the *redundant* element of messages. The second function of redundancy (see pp. 10ff.) is phatic.

The *metalingual* function is that of identifying the code that is being used. When I use the word 'redundancy' I may need to make explicit the fact that I am using the code of communication theory and not that of employment. An empty cigarette packet thrown down on an old piece of newspaper is normally litter. But if the packet is stuck to the paper, the whole mounted in a frame and hung on the wall of an art gallery, it becomes art. The frame performs the metalingual function of saying 'Decode this according to fine-art meanings': it invites us to look for aesthetic proportions and relationships, to see it as a metaphor for the 'throw-away society', people as litter-makers. All messages have to have an explicit or implicit metalingual function. They have to identify the code they are using in some way or other.

The final function is the *poetic*. This is the relationship of the message to itself. In aesthetic communication, this is clearly central; in the example above, the metalingual function of the frame necessarily emphasizes the poetic function of the aesthetic relationship between cigarette packet and newspaper. But Jakobson points out that this function operates in ordinary conversation as well. We say 'innocent bystander' rather than 'uninvolved onlooker' because its rhythmic pattern is more aesthetically pleasing. Jakobson uses the political slogan 'I like Ike' to illustrate the poetic function. It consists of three monosyllables, each with the

diphthong 'ay'. Two of them rhyme. They use only two consonants. And it all adds up to a poetically pleasing and therefore memorable slogan. But we can take this analysis further. Let us imagine the slogan as a lapel badge.

Metalingually we must identify it as using the code of political communication.



The wearer does not know General Eisenhower or like him personally. 'Like' in this case means 'support politically'. So too 'Ike' means not just the individual man, but the political party whose candidate he is and whose policies he represents. In another code, that of personal relationships, 'I like Ike' would have very different meanings.

Emotively this tells us about the addresser, his political position and how strongly he feels about it. *Conatively*, its function will be to persuade the addressee to support the same political programme, to agree with the addresser. Its *referential* function is to refer to an existing man and programme, to make the addressee think of what he already knows of General Eisenhower and his policies. Finally, its *phatic* function is to identify membership of the group of Eisenhower supporters, to maintain and strengthen the fellow-feeling that exists among its members.

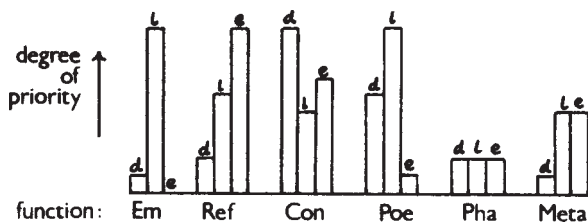
Models and modelling

We have looked at a selection of models that see communication as a process. There are, of course, many more. But the ones we have studied illustrate the nature and purpose of modelling. A model is like a map. It represents selected features of its territory: no map or model can be comprehensive. A road map highlights different features from a map of the climate or the geology of a country. This means that we have to be purposeful and deliberate in our choice of map; we have to know *why* we have turned to it and what insights we require from it.

The trouble with models is that their purposes are usually less well signalled. In fact, many claim a comprehensiveness that can never be achieved. But the value of a model is that (a) it highlights systematically selected features of its territory, (b) it points to selected interrelationships between these features, and (c) the system behind the selection in (a) and (b) provides a definition and delineation of the territory being modelled. Modelling is useful and necessary, particularly as a basis for structuring a programme of study or research. But we must remember its limitations. McKeown (1982) discusses modelling in more detail.

Suggestions for further work

1. Discuss ways in which access to the media relates to social control. Your discussion should refer both to the mass media and to the interpersonal media.
2. Compare fully Gerbner's vertical and horizontal dimensions. Use his model to analyse a piece of communication (for example a family discussion on a television newscast or a classroom lesson). What aspects of communication does he highlight most effectively? See, for questions 1 and 2, McQuail (1975) and/or Corner and Hawthorn (1980), pp. 26-7.
3. Newcomb's model posited an equilibrium within the ABX system. Do you consider that Westley and MacLean's additions/modifications have destroyed this equilibrium and thus the main point of Newcomb's model? Does the fact that Newcomb's model is designed to explain interpersonal communication whereas Westley and MacLean's is designed for mass communication adequately account for the differences between the two? See Smith (1966), pp. 66-79, 80-7 and McQuail (1975), pp. 19-27.
4. Explore the similarities and differences between Jakobson's six functions, Newcomb's ABX, Gerbner's E, E₁, and M, and redundancy. See Hawkes (1977), pp. 83-7 and Guiraud (1975), pp. 5-9 for Jakobson's model.
5. How much can any of the models discussed in these two chapters explain or help us to understand works of art? Do, or should, works of art communicate in the way that these models explain communication? See McKeown (1982).
6. Turn to plate 4 (pp. 54-5). Use Jakobson's model to analyse the communicative functions of a selection of the images. Use a bar chart to indicate the relative priority of the different functions, e.g. for images d, l, and e. Do you agree with the way I have analysed them in the chart below? I found the phatic and metalingual functions the hardest to express graphically. Is this your experience? If so, can you offer an explanation for it?



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