COMMUNICATION AND THE LIMITS OF KNOWLEDGE*

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This paper explores the concept of an infrastructure of human understanding and a new approach to communication research using a logic of positions. Communication is not, as is sometimes supposed, an instrument for conveying information from one point to another nor are the forms, languages, or capacity for understanding uniformly distributed throughout society. The infrastructure of understanding is an extraordinarily complex phenomenon which cannot be explored with traditional methods. Before taking investigations further in this new area it is necessary to redefine the nature of knowledge.

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THE HIDDEN INFRASTRUCTURE

Our commonest way of thinking about communication is in terms of hardware and this, in our time, usually means electronic technology. The policy of most governments and the attention of their critics have been directed towards this technological infrastructure, its control, ownership and presumed power. But there is a less obvious though equally important resource and that is the capacity of a society to generate and sustain ways of understanding; without the second, the first is useless. Putting the matter very simply, there is little point in having hardware systems that can deliver megabytes of information that nobody can understand or make use of. Thus the infrastructure of understanding must be considered alongside its technological counterpart and once this step is taken it opens up a whole new territory for inquiry which may, in a curious and unforeseen way, also change the nature of our conceptions of science.

Raymond Williams provides a succinct summary of the origins of the two senses of communication identified above. Communication first appeared in its modern usage in the 15th Century as an action — 'communicate — to make common to many'. By the end of the 15th Century 'communication' had become a noun — 'the object thus

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made common'. However, in the late 17th Century a new sense emerged which extended its use to cover the *means* of communication. In this more modern sense it was often used as a generalised way of referring to transport systems, particularly during the main period of development of roads, canals and railways. In the 20th Century it has come to refer more to the means of conveying information and ideas rather than goods and people; *transmission* has been emphasised in this usage. These etymological differences are important, as Raymond Williams suggests:

> In controversy about communication systems and communication theory it is often useful to recall the unresolved range of the original noun of action, represented at its extremes by *transmit,* a one-way process, and *share* (cf. communion and especially communicant), a common or mutual process. The intermediate senses — make common to many, and impart — can be read in either direction, and the choice is often crucial.[1]

The idea of an infrastructure of understanding focuses attention on that aspect of communication that is concerned with what is supposedly *shared.*

THE FRAGILE INFRASTRUCTURE

It is not generally realised how fragile and vulnerable is the infrastructure of understanding. Even among researchers there is a tendency to gloss over the breaks, fissures and chasms which characterise this infrastructure in favour of holistic approaches which seek to examine the nature of such constructs as 'linguistic competence', the 'logic of culture' or 'discursive practices'. But the indications of its fragility are there to see and it is as well to begin from the premise that *communiction is based not on the clear evidence of shared understanding but on the belief of shared understanding.*

Consider written language. No other form of communication is quite so intensively taught in systems of education. If a standard was sought against which to judge attainable competence in different forms of communication it ought to be found in literacy. However, the experience of those battling at the front line of communication with the public is not encouraging. The recent British Government report, *Forms Under Control,* which was highly critical of civil service forms for public use, had this to say about the public's competence in this most intensively cultivated area:

> . . .about one in 20 of the adult population have a reading age of less than nine. In all, about one quarter of Britain's adults fail to reach a reading age of 13 as measured by UNESCO literacy standards.[2]

Australian research findings show a similar uneven distribution of competence.[3,4] Measures of literacy are notoriously crude but they reveal in a general way that the capacity of people to make use of this resource is grossly unequal *despite* the massive expenditure of public funds to develop competence in this part of the infrastructure.

When we turn to other parts of the infrastructure the evidence is even more disconcerting. Television is regarded by many as a powerful component of this infrastructure because it is believed to be easily and widely understood, but this may not be so. In the USA a large representative sample survey of the population revealed that:

> The vast majority of television viewers — more than 90 percent — misunderstand some part of what they see, no matter what kind of broadcast they are watching. Normally the range of misunderstanding is between one-fourth and one-third of any broadcast, whether it is an entertainment-news program, commercial or public service announcement. Regardless of what they are watching, television viewers seem to misunderstand facts as much as they misunderstand inferences in a broadcast.[5]

This finding is consistent with other research conducted in Finland which revealed the low level of attention that viewers give to television. Even with the help of the interviewer, 48 per cent of people questioned immediately after watching the news could recall nothing of the content.[6] This finding has been replicated with Australian viewers.[7]

Part of the myth of television potency is based on the belief that visual forms of communication are somehow more easily understood than others. In the case of public information symbols (a widespread form of visual communication which is even thought to be a *lingua franca* in the form of international symbols) the evidence is even more alarming. In a recent international study of an extensive range of different symbols, some of which are widely used, only three symbols were clearly understood by more than two thirds of the respondents and two of these were not pictorial symbols but conventional — a cross for hospital and a P for parking.[8] Of the 108 symbols tested 86 were understood clearly by less than 50 per cent of the sample. 32 of the symbols in this group are in wide use. These kinds of figures are not unusual and have been turning up repeatedly in international and nationally based studies over the last twenty years.[9]

The infrastructure of understanding is therefore unlike its technological counterpart; and it is readily obvious that more efficient forms of information transmission are not necessarily going to lead to better communication, but to more, though undoubtedly faster, misunderstandings.

THE TWO FACES OF THE INFRASTRUCTURE

There are further characteristics of the infrastructure that distiguish it from its technical counterpart. It has two faces: on the one hand there are the conglomerate of loosely defined and vaguely applied conventions which are sometimes misleadingly referred to as codes[10], and on the other hand there is the distribution and nature of competence in these loose conventions within the population. These are not separable, as this analysis might suggest; they are merely the two sides of the same coin. The only way that it is possible to even begin describing the conventions is from a position of presumed competence, so that the researcher faces from the outset the problem of his or her own position *within* the field of inquiry. There is no outsider's position, no place of scholarly detachment or objectivity. As a consequence there is a curious problem: how is it possible to judge the researcher's competence? If for example someone conducts an analysis of television content, how is it possible to be sure that he is competent in the necessary conventions for understanding television? Taking at face value the USA research mentioned earlier, there is a high probability that the researcher will come from those in the population (over 90 per cent) who misunderstand between a quarter and one third of what they see!

To those outside the area of communication research and to many within, it may not be apparent that much of the research which has been done to date has taken for granted the competence of the researcher[11] and has assumed that competence within the population is either homogeneous, or clearly specifiable within simplistic demographic, cultural, or economic categories.[12] There is so little research on this specific problem[13] that speculation, usually with clearly ideological purposes, is the only basis for assessment. In Australia, even in the most obvious area — literacy — there has been no national survey covering the entire population.[14] As for knowledge of most other kinds of communicative competence, there is as little evidence in Australia as in the rest of the world.

The normal practice in research is to treat the loose conventions as objects of study with an independent existence — there to be excavated from the interstices of messages.[15] This curious ontology has created a generation of solipsistic scholars who, by assuming that their own competence is adequately representative of everybody else's, are actually studying themselves and their own readings of texts, offering their imagination as evidence. This criticism is not intended to single out either the empirical or analytic traditions of communication research; it is equally applicable to both.

The problem of the relation between the two faces of the infrastructure cannot be resolved either by an epistemology that places

the knower outside the domain of the known or by the assumption of the representative nature of the knower within a culture.

THE LOGIC OF POSITIONS

The researcher is simultaneously inside and outside, related to others and separated from them. The researcher is in the world and also sees the world from a particular position, so that what is needed is a logic of positions: a calculus which enables the researcher to map out the relationships between his or her position and those of others taking part in the communication process. A comprehensive logic of positions has to cover the full range of potential relationships between a researcher and the communication environment.[16] In this paper an outline will be given of a simple case in which a researcher is concerned with analysing a single text.[17] This will serve to indicate the basic rules of the calculus.

The logic of positions begins from two assumptions: firstly, communication is a discontinuous process involving two separate relationships[18], author/text and reader/text; secondly, the researcher must occupy a position *within* this process and therefore must be either a reader or an author. In this paper the case of the researcher as reader will be considered. One of the consequences of the discontinuous model of the communication process is that readers and authors are separated and have no direct access to one another. However, a logical consequence, which stems from the nature of communication, is that readers, of which researchers are merely a specialised group, *must* project either authors, or other readers into their own processes of reading.[19] The relationships between these projected entities and the researcher are at the heart of the logic of positions.

In the simplest case, the researcher as reader of a text must project either an author or another reader as part of the study of the text. The projection of authors is a familiar part of many scholarly pursuits and has been the subject of considerable controversy within traditional aesthetics and more recently within structuralist criticism.[20,21] Although both these critical positions have recognised the projected and hence speculative nature of authors as viewed by readers, they have failed to realise that these projections are at times a *necessary* part of the reading process. Traditional aesthetics argued that critics who discussed authors were succumbing to what they called the 'intentionalist fallacy'. Structuralists have argued that discussion of authors involves succumbing to the ideology of individualism. Both criticisms see the invocation of projected authors as a fall from grace — either logical or ideological. Neither recognises the logical *necessity* for projected authors.

The only occasion when a researcher as a reader is free from the necessity of projecting authors is when the researcher focuses on potential readers of the text. However, these readers are not directly accessible to the researcher from the text but (like the author) must be projected. Examples of these projected readers are present even in the writings of classical Greek philosophy. In contemporary theory projected readers have taken a more formal critical shape in Reader Response criticism.[22] Some researchers use both projected authors and readers even when they claim to be using neither.[23]

Thus the logic of positions locates the reader/researcher in a kind of trough from which neither authors nor readers can be studied directly but are constructed or imagined as part of the reading process undertaken by the researcher. This complex positioning of the researcher in a web of invisible relations seriously challenges any notion of scholarly independence, neutrality or detachment. In fact the attempt by researchers to extricate themselves from the web and adopt a position of so-called objectivity is doomed to fail because the logic of positions does not allow it. When a researcher tries to stand back, as it were, from a text, a vacuum is created (in the space which he as reader vacated) which must be filled by another reader — one that the researcher is forced to create by the logic of positions. A further projection has been created in addition to the ordinary ones. This new entity might be called a deputy reader since it takes the place of the researcher. Thus the attempt by researchers to extricate themselves from the subjective encounter with the text leads them into exercising greater powers of subjectivity and invention than they would use as ordinary readers. So much for the objectivity of the researcher!

The researcher as a reader of a single text is possibly the simplest case that is encountered. Most researchers will be concerned with a more complex field of relations involving many texts or indeed whole systems of communication with the necessity for projections of multiple authors and other readers. As demonstrated in the simple case above the logic of positions reveals a complex pattern of dependencies that limit and qualify any observation the researcher makes. In this paper those relations have been articulated in words. Once the move is made to a more complex communication environment the logic of positions needs to be expressed in a more economical formal system of abstract notations.[24] However, this is not a system which would enable one researcher to map out the relation which affected another researcher since the first researcher is equally bound by the same logic. The logic of positions involves a whole new way of thinking about research, including philosophical as well as methodological considerations.

A NEW EPISTEMOLOGY

It is possible to liken the world of communication to the yielding surface of a great tarpaulin which is deformed by the weight of somebody moving upon it. Researchers, while moving across its surface, can never see above the horizon of the depression they produce, and as they move from one position to another, contours and horizon change and different parts of the surface become visible or disappear over the horizon. Each change of position results in an altered pattern of available information, but the rules governing the formation of the depressions are always the same and remain so within what is otherwise a constantly changing universe.

Another metaphor may help to give some sense of the difference between so-called scientific theories of communication and what is proposed in this paper. For some time now it has been fashionable to represent the communication process diagramatically.[25] This gives researchers the impression that they can survey the field like gods looking down on a landscape from a great height. None of these diagrams include the researchers. The logic of positions as a formal system creates a new kind of diagram which is similar to one of those tourist maps or guides to the underground system which have an arrow pointing to a spot saying to the researcher, YOU ARE HERE.

There are, at least within the analytic tradition, many researchers who acknowledge the subjectivity of the researcher, but only in principle; they take their own subjectivity to be the same as everyone else's and hence conveniently ignore its consequences.[26] But the question of subjectivity versus objectivity is peripheral. The central question is that of *position;* what one sees depends very largely on where one is standing and looking from. This is in part a restatement of relativity theory within a different domain and subject to very different laws. It should not be confused with relativism and the fashionable nihilism around which the objectivity/subjectivity dichotomy has flourished, which is logically suspect, particularly in its mannered Parisian form.[27]

The changes in our conception of knowledge, not only in communication research but throughout many other areas of research, are likely to be profound since the question of position, while having its origins in a theory of communication, has implications which may stretch out across other forms of inquiry.

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11. There are many examples. The text by Brown and Yule is fairly typical; see G. Brown and G. Yule, *Discourse Analysis,* Cambridge University Press, Cambridge, 1983.
12. J. Fiske and J. Hartley, *Reading Television,* Methuen, London, 1978.
13. The study by David Morley, though methodologically weak, is an important step in this direction; see D. Morley, 'The nationwide audience', *BFI Monograph No 11,* British Film Institute, London, 1980.
14. The Australian evidence is incomplete, dealing only with Sydney (see note 3. above) and with 14 year old school children (see note 4. above).
15. A typical example of this is to be found in Judith Williamson's analysis of advertisements, where she begins by asserting that she is ". . . simply analysing

what can be *seen* in advertisements" (J. Williamson, *Decoding Advertisements: Ideology and Meaning in Advertising,* Marion Boyars, London, 1978. P. 11).

16. A full treatment of this is given in D. Sless, *In Search of Semiotics,* Croom Helm, London, forthcoming.
17. The term 'text' is used here to refer to any message that is perceived by the researcher to have a degree of integrity and unity, e.g. a novel, television programme, poster.
18. A full discussion and application of this assumption can be found in D. Sless, *Learning and Visual Communication,* Croom Helm, London, 1981, and Sless, *(In Search of Semiotics,* (forthcoming).
19. 'Projection' is used here in a sense close to the use of the term by Ernst Gombrich in *Art and Illusion,* Phaidon, London, 1968. The logical necessity for these projections has been demonstrated in Sless (1981), *op. cit.* Empirical evidence of their presence in textual analysis has been demonstrated in D. Sless, 'What We Make Messages Do', in Ted J. Smith III (ed.), *Communication in Australia: selected papers from the second national conference of the Australian Communication Association,* Warrnambool Institute Press and Australian Communication Association, Warrnambool, 1983.
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