Tell me! The right of the child to information
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Chapter 3

The information process

A child's very presence in this world confronts him with one of the most intriguing and inescapable human characteristics: communication. Interaction with one's environment is a basic factor for development. Interaction with other human beings can offer an even higher level of development. This higher level is attained by means of communication which permits a child to express himself and make himself known to others. Such an exchange of ideas also allows a child to listen to and observe the stories of others. Some words sound familiar to him, others pique his curiosity. He interprets all these stories, seeking information about how to grow up. This life-long communication with others and with himself will provide him with the thoughts, feelings and knowledge as expressed by others. These expressions will form his views, opinions, concepts and ideas, and influence his behaviour, in order that he might obtain and maintain a grip on himself and his environment. Depending on his sources of information and his interpretation of the sources, he will form and live out his story of life, with the potential of being authentic.

Central question

In the previous chapters, two points have been made clear. Human development is interpreted as becoming an authentic human being. The rearing and education of children finds herein its basis and ultimate goal. In all aspects of human development, whether physical, emotional, cognitive or social, information plays an important role. The child as an active human being works on his development by seeking information.

In the case of children seeking information, the following questions are relevant: what happens when a child seeks information; how is information offered to a child; are some forms of communication more suitable or effective than others; and, what can be said about the circumstances or prerequisites for the information process. The central question of this chapter is how such an information process works. A profound understanding of the information process is deemed necessary to contribute to an interpretation of the right to information.

These few questions lead to the conclusion that information and communication are interrelated. These concepts have to be disentangled to be used more precisely. In a short general description of the communication process, use will be made of some theoretical approaches. Several types of communication can be discerned. An attempt will be made to give a short description of these different levels and its implications for the information process. Attention will be paid to the different roles of communication, its sources and effects.

Another question is whether the application of general knowledge relating to communication processes in the case of children calls for additional or different approaches. By relating Chapter 2 to this chapter, some remarks will be made about the
information process in relation to developmental aspects. A final question which will be dealt with is: what makes or can make a child a competent and effective information seeker in his development as an authentic human being. There are not only requirements on the child, but also on others.

**Environments of information**

Human beings live in different types of environment, which are important with respect to communication and the information to be gained from the information processes which take place in these environments. At least three types can be discerned. They will be explicated with a reference to the situation for children.

The *natural environment* is formed by the time and space one lives in. This natural environment can be quite different even for children living in the same historical period. The planet earth offers locations with different types of climates and natural characteristics, ranging from the mountains and the threats of floods or volcanic eruption, to the vastness and dryness of the desert. Children living in the same geographic area might still live in a different natural environment, due for instance to their position in the family as a boy or a girl, or as the eldest or youngest of the children. The presence or absence of one or two parents is also part of the natural environment. In this environment, more or less opportunities for communication are offered, influencing, for instance, one's competence with respect to communication.

A child's *social environment* is formed by the society he lives in. His closest social circle includes his parents or guardians and siblings. A larger circle is formed by the people in his neighbourhood, school and clubs. These social environments have differences which stem from the various ways in which human beings communicate. Socially acceptable topics and the frequency of communication may give rise to a different style of communicating, which is also part of culture at large. The socio-economic development of a society determines the amount of time, the desire and the technical means people have to communicate.

The *symbolic environment* consists of the environment created by the images conveyed by the media, for instance television or comic books. Such media present in their expressions images of the world, human beings, social roles and positions or norms. This type of communication needs a large public – not necessarily present in the same time and place – which sees its different needs fulfilled in varying ways.

In addition to these three types of environment, a fourth has emerged from the increasing use of information technology: the *virtual environment*. The image of an environment or space is created by the use of interactive and electronic mail facilities. Sender and receiver seem to be occupying the same space, communicating with each other. The term 'virtual reality' is used with reference to the existence of a world wide network of information sources and communication possibilities. In a wider sense, virtual reality includes all forms of modern technology in which interactivity and especially the activity of the 'receiver' plays an important role. The possibility that the receiver can actually influence the information process is stressed.

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The word 'virtual' itself has different meanings. It means 'potential', 'hypothetical', but also 'actual'. Virtual memory, a computer term, is a peripheral look ahead, and beyond notational memory. Virtual process is used in quantum mechanics, as a process used in creating a hypothetical model, where a real model is not realisable. This meaning comes close to the general understanding of virtual as 'hypothetical, imaginary'. The other meaning is 'potentially, conditionally'. The meaning 'actual' comes up in the phrase: that is virtually the same, which means that it is actually, in essence, but not in name the same. This last meaning seems to be used in the context of new technology, suggesting that in using the provided tools one actually communicates, or really obtains information; one actually lives in this new environment, which is the real world.

Such an interpretation obscures the imaginary or illusory character of this environment, built and constructed with the help of a technology which makes the process of communication almost invisible as time and space hardly count. In this sense, virtual is opposed to authentic, as in the virtual reality the illusion of reality is complete. The digital environment is constructed as a town, for example the digital city of Amsterdam, or as a landscape, e.g. Nandoland, in which children can play games, go and watch animals, seek information in the library or listen to music. In reality, children sit on their chairs, fixating their eyes on the screen and their fingers on the mouse or the keyboard. Nevertheless, they can rejoice when they hear their favourite pop singer or see their favourite pet, or get angry when they do not find the key in their computer game. The future effects of this fourth type of environment on the development of children remain to be seen.

A child seeking information will find his main sources in these environments. They can fulfil different roles. For a harmonious development they should complement each other and support the process of growing up.

Concepts of information and communication

In communication science, information is considered to be a significant message directed towards a receiver. When a school journal contains an article describing how a pupil was dismissed from school the message is structured by means of words. The abstraction of this arranged structure is called information. It is noteworthy that the Latin verb in-\-formare means: forming, making, or putting into a form; figuratively it means imagining, designing, painting, and then 'forming (by education)'. Informatio therefore means image, notion, formation, cultivation, education. In many languages the verb related to informing, has both a transitive and an intransitive meaning: giving information to another person and asking for information or inquiring. In some languages, the process is clearly related to the inquirer as a reflexive: to inform oneself. This meaning comes close to a notion of self-education.

Information and communication interrelated

At an early, pre-scientific, stage, the notions of information and communication perceived the idea of transmission as a central factor. In order to be information, something had to be transmitted between two partners called sender and receiver. Ac-
cording to this definition, to transmit information is to communicate. Information cannot be transmitted without a code in which it is recorded. The coding used by the sender must be capable of being decoded by the receiver so that the message can revert to (the original) information. Gestures, colours (traffic-lights), spoken sounds or letters of words in a language are all forms of codes. Electric signals which provoke sophisticated action are likewise considered to be codes. The idea of the transmission of information provided an understandable, but also illusive image that messages, which contain thoughts and ideas, like postal parcels, are transferred from one person to another. This notion easily leads to the false interpretation that something is leaving one person and entering another person, whereby the former has lost something.

Another definition of information, used in information theory, considers information to be a measurable quantity, like mass or energy. What is measured is the statistical probability of signals, like sound waves or electric impulses. The smallest quantity of information is called a bit (binary information unit). In such a theory which envisages the mathematical laws for the functioning of systems transmitting or manufacturing information, the meaning of a message is not important. A message is represented by a series of ones and zeros which contain the information, reducing uncertainty to a half (zero or one). This theory was founded by Shannon and Weaver and has mainly been applied in information technology and data processing, but its concepts have also been used in biology, psychology or the study of natural languages. In the latter case, for example, Ungeheuer explains: 'The mathematical machinery of information theory can perfectly well be defined as part of pure statistics and the theory of probability and is, therefore, not bound only to engineering interpretations. As was proved in several sciences, it can undergo a variety of applications, of which those in natural languages are preponderant.'

In communication science, communication is related to the original root in the Latin word communicatio meaning 'announcement', and to the verb communicare meaning 'making common, sharing'. Communication is generally seen as a process in which a sender makes messages available to receivers. Such messages can serve as sources of information for the receivers, who can gain information from it. The two parties, sender and receiver, have their specific roles in the process and can change roles. Communication is not a process when used in the original sense of announcement or notice, nor in the sense of the situation resulting from the communication process(es): for instance, a disturbed communication.

In this general description of a communication process, it becomes clear how information and communication are interrelated. The message offered by the sender is a source of information for the receiver. Both sender and receiver have to be active. The sender must put the information he wants to share in symbols with a meaning: he must encode his announcement in a message. The receiver must use the available message as a source of information and decode the message in order to gain the (origi-
inal) information. The meaning in the message has to be gained by the receiver. Therefore, communication is sometimes described as sharing meaning. This potential of sharing is still present in the Dutch and German words for communicating: mee-delen, mit-teilen, 'by which one human being can make the other share in what keeps his mind busy by means of speech, script and image; he can make him sharer of his own experiences, thoughts and feelings; in such a way he can even transplant in the other 'thought-images', ideas, yes, even systems of thought,' as Prakke considered. One must immediately correct the view that in reality something would be transplanted, transferred or transmitted. The essential of communication is that the sender tries to call forth, to call up meanings in the other human being. The meanings are in fact in the human being, neither in the message nor in the signs. This description evokes the philosophical question whether complete communication between human beings ever is possible, as it is hard to believe that there would be two human beings who will give exactly the same meaning to something; they always differ in experience, by their very uniqueness. As a result, trying to overcome loneliness, or the feeling of being a separate human being, by communication will necessarily be in vain.

In psychology, communication is considered to be a process in which sensations are interpreted. A human being can only make contact with the world outside of his senses. Three types of communication can be discerned. Intrapersonal communication refers to the communication with oneself: for example, hearing oneself talking, feeling the movement of one's own breathing or thinking. Becoming conscious of the various sensations one experiences, can be considered as a more advanced form of inner communication and is also attributed to authentic human beings. Such communication can hardly be studied by the traditional means of scientific research, because of the impossibility of independent verification. The second type of communication refers to communication with others in direct interaction: interpersonal communication. Parent-child or teacher-pupil interactions or interactions between children in, for example, a scouting group belong to this type. In public or mass communication, the third type, a large number of people can be reached by the sender at the same time with messages containing, e.g. information, knowledge, values and norms. The means of making such messages available are, for example, film, broadcasting, lectures and the press. Additionally, theatres, book or music shops, museums and libraries serve as distribution resources for the mass media. These are places where receivers can access sources of information.

7. *Grote Winkler Prins Encyclopedie*, Amsterdam 1991, Vol. 3 (communication), p. 406-407. It should be noted that even if one speaks of the world outside of the senses, it is still the senses through which perception and hence sensations come. In some traditions, e.g. Taoist, Buddhist, thinking is also considered to belong to the senses, with the same resulting tendency of attracting and avoiding.
In a recently developed image of the different levels of communication, mass communication is placed at the top of a pyramid, representing the way in which communication processes are distributed. It means that within a (Western) society there are only a few cases of society-wide communication (e.g. mass communication). More processes of communication exist between institutions and groups, even more within groups (e.g. family) and between two persons (e.g. dyad) and most within one person (e.g. information processing). McQuail notes: ‘Alternative society-wide and public networks are now rare, but at one time these might have been provided by the church or by a political organization, based on shared beliefs and involving a hierarchical but also personalized network of contacts. Such alternatives may still develop, especially informally, under conditions of restricted access to mass media channels.’

One wonders, in this respect, whether the development of the Internet would meet the definition of an alternative mass communication process. A real alternative would be the development of human rights-inspired interaction pervading all levels of communication, and forming the basis of mass communication.

This convenient pyramidal scheme designed by McQuail does, however, not account for some recent developments which are described as a ‘globalisation’ of social life. National frontiers are no longer the limit to communication. Not only has the international exchange of media programmes and films increased, but also broadcasting beyond the national borders has grown. As a result, the range of cultural and informational choices available to consumers has been greatly widened. Human beings are no longer confined to their immediate social environment and national communication system for their communication needs.

Returning to the psychological view on communication, attention has been paid to speaking as a communication process in which individuals attribute meaning to verbal and non-verbal symbols. Verbal symbols are the words, either spoken or heard. Non-verbal symbols include tone, gestures, body-movements, facial expressions and the use of objects, time and space. Using words and signals which refer to something else gives meaning to that object. Human beings differ in the way they attribute meaning to things and this causes differences in the interpretation of symbols. It may lead to conclusions by the receiver, different from what the sender had intended. The intention of the sender about how the message should be interpreted is called ‘preferred reading’—reading not to be taken literally.

In the interpersonal communication it is also important how a human being defines himself in the communication situation. In other words, the self-image participates in the communication, and influences the openness for new interpretations or the tendency to stick to former impressions. In each communication situation, a message has not only a content but refers also to the relationship between the two parties.

According to a sociological definition of communication, the particular social and cultural context of sender and receiver limits potential open communication between individuals. This environment is not only formed by the culture and language, but also by the smaller social groups and important reference persons of the


sender or the receiver. People seem to be selective in their acceptance, perception and retention of messages. In a complex society, the creation of larger social circles increases not only the need to communicate, but also the problems associated with such communication. Social and cultural differences can hardly be overcome by more advanced technology and increasing the number of people involved in ‘organising’ communication between individuals, groups, institutions and the society at large. It will be clear that especially for new-comers in such a society, communication becomes an elaborated skill which will take time to learn and has to be kept up to date. The capability to handle information is part of the intellectual competence which enables people to use more complex forms of e.g. leisure time activities.12

The sociological approaches focus especially on the communication between groups and group representatives. Communication fulfils important roles for achieving unanimity, participation and cooperation. The social role of communication and the social effects on the communication process itself are both object of research, resulting in studies on mass media effects.

It should be noted here that the question of defining communication has not come to an end, nor the fencing off its field of science. The various concepts presented have been developed by scholars from different disciplines and only few are considered as real founding fathers of the communication science. Nevertheless, all contributions should not be regarded as equally important, as the discipline has gradually achieved a state of development which goes beyond the focus on new media, as Stappers states in his survey on communication science.13

**Development of concepts**

In order to describe communication in general, attempts have been made to label the basic elements of the communication process. Traditionally, concepts of communication processes are presented in a flow chart model. The basic model contains the following description.

A source or sender – which can be either a human being, a group of human beings or institution – sends stimuli or incentives to an intended receiver. The senses of the receiver perceive the stimuli or messages. The receiver will interpret these messages according to the attention he has paid to the stimuli, his experience and expectations, and his language skills and feelings. There may be difficulties in the reaching the receiver, he may be tuned to a different broadcast station; or, the interpretation might be disturbed by internal factors in the receiver, due to a wrong deduction or generalisation; and, by external factors such as noise in the environment or inappropriate language used by the sender.

The receiver will react to the received message. The sender’s perception of this reaction is called feedback. Feedback is the transmission of the receiver’s reaction back to the sender.14 Such feedback is not a mechanical response but instead contains a

message to the original sender that confirms receipt of the original message and which sets out the receiver’s reaction to that message. It will help the sender to modify on-going or future communication behaviour. Questions or requests to repeat something may function as feedback in a conversation between persons. The situation or context in which the communication takes place is also very important for the communication process. The feelings of the participants, their retention of former communication, and even the time of the day and the locality are important internal and external factors.

There are different approaches to the question of whether sender and receiver have to be present. One could state that the sender makes his messages available and the process of receiving and interpreting does not have to take place at the same time or same space. This situation, which is at odds with the original definition of communication, arises where technology permits original human face-to-face communication to be fragmented and allows for variations in time and space. As a result, the receiver’s role risks being treated as a separate phenomenon, without reference to the original communication process.

Another approach is to pay more attention to the different roles of sender and receiver. It was mentioned earlier that the messages originating from the sender are the sources of information for the receiver; the term – message or source – depends on the perspective one takes. In recent years, the dominance of the sender’s perspective, as shown in many theories, has given way to the receiver’s perspective. Formerly, the receiver was considered to be a rather passive party, simply taking in the messages and behaving accordingly. Nowadays, the receiver’s role in selecting and interpreting messages has become much more acknowledged. This acknowledgement has gone so far that two processes are discerned: the communication process, in a limited sense, by which the sender offers messages; and, the information process, in which the receiver selects and interprets the messages. Both processes form the communication process at large, or the communication event.15 This leads to the following model. (See Figure 1, page 82.)

The process described in the model is a very general one, regardless of the nature of the communication process: intrapersonal, interpersonal, or mass communication. Research has drawn attention to the different aspects of the communication process and this has led to additional elements in existing models or to new models for a specific kind of communication, for example mass communication.16 The models are verbal or graphical schemes in which the communication process is described in a schematic, simplified way, and from a structural, dynamic, functional or operational perspective.17 The diversified research which is undertaken nowadays is a long way from the first mathematical model.

Change of paradigm
One of the changes which have taken place in the last few decennia is the transfer of the focus from the sender to the receiver. This change has given rise to different types of research which all took the receiver as the point of departure and studied his communication behaviour in its own right, regardless of what effect the sender had intended. Such research is mainly based on mass communication. One of the
most important approaches is the research on media 'uses and gratifications'. According to Blumler, the uses and gratifications 'are concerned with the social and psychological origins of needs which generate expectations of the mass media and other sources, which lead to differential patterns of media exposure or engagement in other activities, resulting in other consequences, perhaps mostly unintended ones.'

The position of the receiver is valued higher because he is the one that gives meaning to the offered stimuli or messages. It should be noted that in this approach the supposed needs of an individual must be perceived by him as problems and possible solutions have to be perceived as well in order to motivate him to take relevant action, like using the media or other behaviour.

The change of the focus from sender to receiver has not only given incentives to a different type of research but has also changed the approach and methods of communication science itself. It has even given way to a new branch of science: information science, and to further application of an older one: informatics. This has also led to a difficult and confusing use of the term 'information' which seems to be detached from its roots in communication processes. A proposed solution for a division of labour would have communication science concentrate more on the social use of information (public use and leisure time use) and information science on the use of information for the professions, business, and science.

**Information seeking**

Most of the developed models still start from a sender-receiver model, regardless of the interest that they may have in the process of the receiver. Furthermore, communication is mostly defined in terms of offering messages, regardless of whether this leads to dialogue or understanding. Little attention has been paid to the communication process initiated by the 'receiver', who seeks information.

It is quite remarkable that in the second edition of McQuail's survey of communication models, the only information-seeking model is left out. This model developed by

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23. Most of these rare models are based on information seeking by scientists; one of them was developed in the research on the use of social services: Wilson, T., D. Streetfield, G. Wersig, Models of the information user. Progress and prospects in research, in: Sweeney, G., (ed.), *Information and the transformation of society*. Papers from the First Joint International Conference of the Institute of Information Scientists and the American Society for Information Science, held at St. Patrick's College, Dublin Ireland, 28-30 June 1982, North-Holland Publishing Company, Amsterdam, 1982, p. 361-367.
Donohew and Tipton\textsuperscript{24} is based on the socio-psychological tradition of attitude congruence, Festinger's dissonance theory.\textsuperscript{25} This theory holds that a person has a tendency to avoid information incongruent with his image of reality because it is too threatening. Human beings strive for an inner balance or cognitive consistency of their attitudes, views and behaviour. Some key concepts are: (1) the image of reality, a result of the individual's lifetime experiences; the goals, beliefs and knowledge acquired; (2) the self-concept, including the individual's evaluation of his ability to handle different situations; and, (3) an information-using set, which is the style of information seeking and processing. This theory might also give an answer to the rather recent phenomenon of a growing number of human beings, who purposely try to avoid confrontation with commercials and advertisements and who are even willing to pay a double broadcast-contribution in order to have at least one commercial-free channel.

Different information-seeking strategies can be developed, ranging from a broad focus, starting with an inventory of possible information sources, to a narrow strategy, departing from one source. In the process of information seeking, the 'stimuli' are compared to the existing image of reality. Overly threatening or non-important material may be screened out. If the stimuli are consistent, action may be taken to assess the situation or to revise the image. It becomes clear that the information seeker has to ask himself several times what questions need to be answered, which sources are needed, and whether evaluation of sources is needed. The process may result in a revised image of reality, perception of environment and self-concept. The information-seeking style may also be modified or reinforced. This model seems to be mainly described as an intrapersonal information process and does not take into account the interaction between the seeker and the environment and such factors as information availability and time limits.\textsuperscript{26}

Another variant of an information seeking approach refers to the point that human beings seek information to reduce uncertainty, which may be caused by the discrepancy between the knowledge one possesses and the knowledge one would like to have. Whether and how much information will be sought depends on a kind of cost-effective analysis. This analysis might be based on the time and money one wishes to spend on seeking information and the high or low value of the results. Such rational deliberations are not always possible, nor does the information gathered always bring certainty. One may discover the draw-back of one's view.

Yet another variant points to the social utility of information. Human beings have a tendency to compare their views and opinions with those of others and to adjust them when necessary. They co-orientate with other people and try to achieve concordance with others in their social environment. Therefore, they seek information to get to know more about others or to pass this information on to others.\textsuperscript{27}


\textsuperscript{25} Festinger, L., \textit{A theory of cognitive dissonance}, Row Peterson, New York, 1957.


In the case of children

None of the communication models that were found focuses especially on children, nor are they mentioned as possible receivers or information seekers. One could posit that this finding is very positive as obviously no discrimination against children exists. One could with far more probability suppose that they are not thought of as senders and receivers of messages in a communication process, and therefore do not require a special focus and further elaboration in theoretical models. It might for example make a difference if there is a rather established pattern of processing information, or of interpreting different views, as opposed to the case where such processes take place with less experience and more space to air fresher views. In other words, the 'human beings' in a communication model should not be considered as static but as dynamic people, with differences in growth and development throughout their lifetimes. This intrinsic dynamism is still somewhat different from a dynamic approach to communication itself.

In practical research, more attention has been paid to children, but not always with references to developmental aspects and uniqueness. Nevertheless, 'childhood is a period of information seeking during which the child learns what to expect from the world and what the world expects from him.\(^{28}\) In communication science, the view on human beings has not always been very realistic or flattering. They were either seen as very rational and clever or as rather dumbfounded and apathetic, exposed to the tricks of the senders. In the research on conversation, the adults mainly pose the questions and analyse the answers of the children, leaving little room for initiative on the part of the child. Another case in point is that research has focused on the effects of mass media on children, in which for a long time children have been considered as passive or invulnerable watchers, because the programmes were not intended for them and were above their level of understanding.

A further development of the paradigmatic change from sender to receiver would be that children are recognised as developing human beings by their very nature, and in search of understanding themselves and the world around them. This is the primary characteristic they bring to every communication situation. They are not only receivers but also seekers of information. This enquiring attitude makes them ask questions, implicitly or explicitly, and also drives them to question everything they encounter. Such questioning may cause discomfort in the child's environment, but this is exactly what makes communication with a child a challenge to develop communication between authentic human beings.

In the above mentioned information-seeking model, the example was given of a farmer seeking information to treat a disease in a tobacco plantation. This type of information is quite far from a child's need to orient himself in the world and form a view of the world and of himself! The development of a model for a child's information-seeking process should take into account another paradigm: to consider and respect children as human beings, and to regard a child as an active, curious, initiating, creative human being, seeking a dignified and valuable way in life. Two types of

information are sought by the child: information which is important to develop a personality and information to participate in society. The underlying or potential aim of this information seeking is to become and live as an authentic human being. What will different types of communication offer the child in this respect is the guiding question in the next section.

Types of communication

In the research on communication processes, it has become clear that communication differs according to the type of sender and the receiver and the means of making messages available. Although attempts have been made to formulate an overall description for communication, specialised research into different types of communication has followed.

Approaches

In general, four levels of analysis can be discerned: 'the intra individual level of processes that occur within the person in relation to communication activities, the interpersonal level where communication relationships involving two or slightly larger number of persons are studied, the network or organisational level, where larger sets of persons are studied in the context of a set of ongoing relationships and the macroscopic societal level, where communication properties and activities of large social systems are studied, often without immediate reference to the people in those systems.'

Researchers often confine their work to one level, using specific methods for that type of communication. However, substantive subjects may be studied at all levels. For example, in socialisation there are individual processes like learning; interpersonal processes, like parent-child interaction; network and organisational influences of e.g. peer groups, clubs and schools; and, factors at the macrosocial level, like the cultural influences of the mass media.

The research on information-seeking aspects in the communication process of children is such a substantive subject which involves processes at all the levels mentioned. In order to obtain an overview of the different communication processes in which children are involved an attempt has been made to use both the levels of communication and significant elements of the information process in a coherent way. Partly using the Lasswell-formula of 'Who says What to Whom and How', but departing from the child's perspective as an information seeker, the following overview gives an image of the various sources of information children may find in seeking to fulfil their information needs. These needs relate both to the development of their personality and to their social participation. As described in Chapter 2, these

information needs are concerned with e.g. self-image, world-view, values and roles, orientation in general and specific fields, knowledge and skills. Apart from the different levels of communication as discerned above, the environmental context in which the communication processes may take place is indicated. The senders or suppliers of information, which serve as the sources of information include parents and other adults, but also institutions like school, library and law-shop, apart from the mass media. Several forms of communicative action are involved like conversation, non-verbal behaviour, participation; and, also seeking information, selecting documents, reading, viewing and listening. These efforts of children can be considered as developmental attempts oriented on understanding themselves, other human beings and the larger world. (See Figure 2, page 88.)

To this overview can be added the information a child seeks in a special situation. For example, when he is in hospital, he might like to know about treatment, the use of medicine and his prospects. If he is lodged in an institution for residential care, he might like to know about his possibilities for leaving. In general, he might like to see the personal records which many institutions keep about children such as schools, residents, homes, adoption organisations, medical institutions (for insemination, etc.), and registration service. Children certainly need information when confronted with the divorce of their parents, and the decisions on housing and school. There are different ways in which such information can be supplied. Much of the effect will depend on the context and style in which such communication takes place.

In the following, different levels of communication will be described, with a view to the particular aspects of this type of communication, to information seeking, to developmental aspects, sources and effects. This description can only be a modest extract of the vast fields of communication processes. The group-level and the institutional level of communication are not discussed separately, but as far as necessary included in the description of the other levels.

**Intrapersonal communication**

During the first years of life, children make remarkable progress in their ability to think about and understand their world. The processes of thinking and knowing (cognition) include attending, perceiving, interpreting, classifying and remembering information; evaluating ideas; inferring principles and deducing rules; imagining possibilities; generating strategies; and, fantasising. A new kind of paradigm in developmental psychology, considered the child, also the newborn, as an active, selective organism, an information processor. The individual is the bearer of a more or less organised totality of rules which determine the information processing.32

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<td>peers</td>
<td>conversation behaviour participation</td>
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<td>knowledge orientation skills</td>
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<td>neighbourhood</td>
<td>library</td>
<td>seeking, using documents reading listening participation</td>
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<tr>
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<td>legal info advice</td>
<td>city</td>
<td>law-shop</td>
<td>conversation participation</td>
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<td>city</td>
<td>advicebureau</td>
<td>conversion participation</td>
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<td>general or specific info</td>
<td>national</td>
<td>information line</td>
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<tr>
<td>public/mass communication</td>
<td>values attitudes roles knowledge</td>
<td>(inter) national</td>
<td>media</td>
<td>viewing listening reading using PC, TV etc.</td>
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*Figure 2: Communication processes in the case of children seeking information*
Concept
Intrapersonal communication refers to the communication processes which take place within a human being, whether alone, in interaction with others or using media. There are different approaches to this phenomenon. Neurophysiology studies the relations between stimuli on the senses and the brain, and cybernetics tries to understand how the biochemical communication of stimuli, reactions and feedback in the body works. In philosophical psychology, thinking is considered as a form of intrapersonal communication, talking to oneself, being both sender and receiver.

Other results from psychology have mostly effected the study of intrapersonal communication, as the focus is on the processes of perception, thinking and learning, in this context called ‘information processing’. Sometimes reference is made to the way in which machines and computers process information. There remain, however, differences between biological and artificial ways of processing information. Nevertheless, advancements in communication engineering, information theory and computer technology have supported the metaphor of the computer as the human brain. Mental operations are to some extent comparable to the workings of a computer. Both take in information (input function), perform operations (throughput function) and display results in different form (output function).

Research questions are mainly concerned with how information is selected, represented, stored, retrieved, etc.; what mental processes are used to deal with information; how they are organised; and, how they change during learning or development. Information-processing theory, therefore, investigates memory, perception, attention, language and problem solving. In order to understand human learning or

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**Figure 3: A hypothetical model of the human information-processing system**


communication processes, experimental or real-life tasks facing the child are carefully analysed to determine in a step-by-step process how information is transmitted, manipulated and leads to a given output. Different steps and relations are depicted in flow-charts to give a schematic representation of the information processing. Such a scheme can be the following.

**Information seeking**

In presenting the major elements of the human processing system, one will find the basic intrapersonal aspects of information seeking. The human information processing system consists of sense organs, short-term memory and long-term memory, which will be described briefly.

Sense organs can poetically be described as the windows to the world, they are the channels by which a human being interacts with his environment. All of the senses sight, hearing, touch, smell, taste feed (just one kind of) environmental information to the system, including organs for detecting temperature, pain and body position. A human being only perceives a part of the spectrum of light waves and the range of sound waves. There are differences in hearing related to age. But, whatever the age of a human being, the sense organs gather information from the environment in a highly selective way. As a result, a lot of potential information is filtered out at the very beginning of the intercourse between individual and environment.

The short-term memory which processes the stimuli collected by the senses, has two functions: storage and working memory.34 Recognised impressions are kept for a brief time and some cognitive activities continue, such as the meaningful elaboration of words, symbol manipulation and reasoning. According to the traditional theory, short-term memory consists of three stages: sensory memory, encoding and semantic memory.

Sensory memory is apparently located in the sense organ itself, and works unselectively in the sense that it holds all receivable stimuli, like all receivable light impulses striking the eye. But, this retention of information in its 'original form' does not last for more than half a second (visual stimuli) or two seconds (auditory stimuli). The sensory memory is differentiated according to the kind of stimuli: iconic, echoic, and haptic memory.

During this short time, an interchange takes place between sensory memory and long-term memory in which gross characteristics of the stimuli are identified, for example separating voice from birdsong or truck-noise. Encoding means that impressions are recast into a form, like codes, symbols, representations, suitable for manipulation and storage in the long-term memory for later use, or else they are lost. This encoding lasts only a brief time; the memory is of very limited capacity, with possibly some more capacity for auditory than for visual impressions. Semantic memory is the stage where the coded materials from the different sensory memories are combined and compared to selected elements from long-term memory. In this stage of perceptual recognition (Aha!), a person identifies the information with respect to

that which it represents in terms of his (long term) memory of past experiences. The average adult is assumed to be able to hold seven chunks of information at one time. A chunk is described as 'a portion of a person's knowledge base that is always activated and deactivated as a unit'.

Chunks may be simple like a name or a date but can also be complex as a concept (e.g., how an electric pump functions). Although an individual can recall in immediate memory seven chunks of information, the number of chunks he uses in immediate consciousness is more likely to be limited to a single unit or chunk.

*Long-term memory* is the storage location of ideas or mental constructions derived from a person's past experiences. This collection of ideas is the person's knowledge base. It has two principal functions: directing the operation of the entire information-processing system; and, storing coded material derived from the person's past experiences. It seems that long-term memory can accommodate infinite amounts of material and retain it indefinitely. How knowledge is stored is not resolved. One possibility is that the coded material takes two main forms: episodic memories are memory traces about single events from the past involving specific persons or objects; and, semantic memories consist of more generalised instruments of thought, concepts and processes, not limited to a specific place or time.

Another possibility is to differentiate between declarative memory (events, facts, concepts) and production memory (procedural knowledge, operations).

Other elements also constitute the anatomy of long-term memory such as goals which motivate and stimulate the individual to focus attention on certain aspects; and, relationships which connect one item to another in concepts or labelled abstractions. Long-term memory can also be affected by emotions, suggested by such words as anger, pity, attraction, which are often associated with events, goals and relationships. Values are another point, giving opinions about the desirability, propriety or goodness of something, which are also associated with certain elements of the stored memory.

The functioning of the long-term memory can be described as follows. One of the most important interactions is that of matching the stimuli received from the environment with the contents of long-term memory. Active decision making and problem solving are carried out in a flow of rapid transactions between the semantic short-term memory and long-term memory. In this way, a person assigns a 'meaning' from the long-term memory to each, now recognisable, sensory encounter with the environment. The main ideas or concepts are then stored in the memory bank. Whether the results of the new encounter are similar to existing memory traces, are new additions, or are recorded in great detail, old coded traces influence how new experiences are constructed and stored. However, new experience may also cast doubt on the logic of older memory or colour original memory with emotions of pleasure or distaste and alter it. As a result, memory is underlying change.

Information-processing theory attempts to explain relationships between attention, perception and memory. Attention works as a filter or gatekeeper. One of the

‘laws’ of attention gained from media research is: the longer a viewer continuously maintains an episode of visual attention, the more likely it is that he will continue to do so. This attentional inertia also occurs in other activities like playing with toys. This assumption is based on the progressive involvement or engagement which prevents children from looking away or getting distracted.

Developmental changes show that children acquire better control over the deployment of attention, they can ‘decide’ what they will and will not attend to. Their attentional patterns become more adaptable to the situation, for instance scanning or focusing narrowly where appropriate. Children become more contriving. They do not simply select from what is available, but anticipate what they want to see or hear and search accordingly. They become increasingly able to extend their attention, sometimes dividing it among different activities, for example watching TV and playing games. In this respect, one might question whether this extension, resulting from examples set by adults, and the general fear of ‘missing’ something, is to be welcomed. This new skill certainly does not support the ability to pay attention. Instead, it supports the inability to make a choice and be responsible for it.

Paying attention is considered to be a purposeful operation. People actively seek stimuli rather than only passively record impressions imposed on them by the environment. This point is important if attention is to play an initiative part in the gaining of knowledge and understanding; attention starts with will. Research has shown that people seek selectively, and use strategies. They focus on certain items for conscious analysis while ignoring others. Such selectivity is necessary because the human attention-directing mechanism has limited capacity and apparently can only operate on one item at a time, rather than on several simultaneously. This knowledge is, for example, present in various traditions and consciously used in meditation practices to become concentrated and thereby empty the mind of the flow of thoughts.

Perception is another term frequently used in information-processing theory and other fields. Perception includes all the steps from the environmental stimuli right through to the stage of semantic short-term memory, called perceptual recognition.

Developmental aspects
Research results support the idea that information is processed differently at various stages of children’s growth. The first area in which differences are noticeable is the sensory intake. An infant has a limited store of experience. That which is novel to a young child will be quite usual for an older child. The intake of sensory information is related to experience. The differences in the attention span also go through in three stages: small infants focus on objects in their sensory environment often and for a long time. Between one and four years, they get acquainted with patterns they

have already seen and focus on the features on which to base their decisions. Neverthe-
less, this focus is not yet a planned action; attention shifts from one detail to an-
other from one moment to the next. Older children are capable of searching an envi-
ronment to acquire all needed information. They do not rush from detail to detail,
but select key features and are able to change their mind on the basis of feedback.
Judgements may be altered, rules can be abstracted or modified. In short, they have
better cognitive control over their attention.

Developmental differences have also been found in short-term memory capacity.
The number of chunks increases from one chunk at 18 months, four chunks by age
two to seven chunks during adolescence.\(^{42}\) Not only the number, but also the com-
plexity of chunks affects the operation of short-term memory. The greater the com-
plexity present in the repertoire of an older child's memories facilitates, the more ef-
ficiently his short-term memory functions.

Most differences in children's information-processing systems are found in chang-
es in the long-term memory, due either to maturation or to experience. Older children
not only have a greater number of memory traces, but also more associations relating
to concepts. They create more complex thought patterns than younger children. With
age, processes become more sophisticated by the use of rehearsal and mnemonic
techniques. As a result quantity, variety and complexity are subject to growth.

Older children have a greater ability for coding stimuli into symbols, concepts or
words. They, therefore, seem to be superior to younger children in perceiving, stor-
ing and recalling information. The interaction between short-term and long-term
memories also increases in speed as the child gets older. The different components
of the information-processing system get better integrated.\(^{43}\)

Sources
The sources in intra-individual communication are everything that one has gathered
from experiences. This can be both experiences with oneself and experiences of one-
self with the environment and especially with other human beings. All impressions,
thoughts, concepts, feelings that are kept in the long-term memory serve as the
source of information for all intrapersonal communication. In fact, this source is not
only working in intrapersonal communication, but is at present in all communica-
tion, whether with one or more other persons, or in the process of mass communi-
cation. This fact clarifies how the different levels of communication are interlinked, as
they always come back to the individual level: communication apart from an indi-
vidual is unthinkable, or at least undefinable.

It has sometimes been stated that communication with machines, especially com-
puters, also offers sources of information. According to most definitions, however,
the word 'communication' is reserved for the specific and highest form of interac-
tion between human beings. In the hierarchy of interactions in which a human being
can be involved, man-machine interaction is considered to be at a far lower level.


\(^{43}\) For far more detailed description of these processes see: Meadows, S., The child as thinker. The development
This point is especially important for children as in a process of communication, they not only take notice of the announcement, but also of the way in which another human being makes himself known: his behaviour, his way of speaking and all non-verbal elements. All aspects of the message may help and serve the child to decode in a correct manner and to form a view of the communication event as a totality.

Effects

One of the main effects of intrapersonal communication is self-monitoring. Self-communication allows one to make consistent sense of all acquired information. This possibility requires intense activity on the part of the child as information gained from so many sources has to be somehow structured and put in order. Human beings seem to have a general tendency to acquire and maintain a consistent self-image. This tendency applies to all human beings regardless of age, but for children acquisition and maintenance of such a self-image is a major undertaking, as they have had fewer encounters with others. The proverbial openness of children means that patterns of selection, retention, and interpretation of information are less fixed than in most adults. The values they encounter have to be fit into a consistent frame of reference. It is noteworthy how this type of communication is considered: 'Much communication of this type is non-utilitarian – it is not calculated to achieve specific ends – but rather consummatory – an end in itself. It has to do with the formation and expression of an identity and a consciousness of the self.'

44 The terms 'non-utilitarian' and 'consummatory' do not seem to reflect the importance which intrapersonal communication has for the growth of a child as a human being with a positive self-image.

Another point is the effect this communication has on the child in relation to his environment. Human beings have a tendency to maintain a cognitive balance with the environment. The image a child has of himself should not be at odds with the image held by others or the apparent requirements of the environment. This tendency of self-preservation is reinforced by the intrapersonal communication which the child uses to structure the information he has gained from different images of himself. It is generally held that perceived discrepancies stimulate acts of information seeking. In intrapersonal communication, the child also tries to attribute causes and motives to the encounters he has experienced: it helps him to interpret the environment, to reduce uncertainty and to develop appropriate models or scripts of such encounters.

Another important aspect of this communication is that it permits a child to compare himself with others and to come closer in thought, behaviour and appearance to people with which he identifies. The value of close relationship and expression of attachment are facilitated by such communication.

Interpersonal communication

The second type of communication with which children are confronted is interpersonal communication, which can take various forms. It is basic to human relationships, whether it concerns a conversation with one's parents, a question to a teacher or a talk with a shopkeeper.

**Concept**

Interpersonal communication is basically a communication process between two human beings. The specific role each person plays and the possibility of changing these two roles are essential to this type of communication. In general, the two participants will change roles several times, as is the case in a conversation. Sender and receiver take turns. One of the general concepts of interpersonal communication is an A-B-X-model, in which A stands for the sender, B for the receiver and X for the item about which A says something; he makes an announcement. This announcement is encoded in a message which is offered to B. It is up to B to notice the offer and to decode the message. Many factors play a role in the practice of encoding and decoding. Because of the shared orientation with respect to X, this type of communication is characterised as co-orientation.

Children learn the basic elements of interpersonal communication very early. The basic skills of paying and drawing attention and turn-taking have been observed by Bowlby. He laid the foundation for his theory on attachment, which characterises the relationship of care-seeking and care-giving. So long as persons feel that their attachments figures are accessible they feel content. But if for any reason they feel there is inaccessibility and no communication, then they may be very worried what is going on. Such a relationship can be very well maintained through communication. The need to break through one's separateness - being enclosed in one body - may lie at the very basis of communication. For such a shared presence, words are not necessary, but most people cannot do without. Silent communication is rare. A story by Jabès:

Un jeune homme alla trouver son Maître et lui dit: 'Puis-je te parler?'
Le Maître lui répondit: 'Reviens demain. Nous parlerons.'
Le lendemain, se présentant à nouveau à lui, le jeune homme lui dit: 'Puis-je te parler?'
Tout comme la veille, le Maître lui répondit: 'Reviens demain. Nous parlerons.'
'Hier, je suis venu,' répondit, déçu, le jeune homme, 'et je t'ai posé la même question. Refuses-tu de me parler?'
'Depuis hier nous dialoguons, répondit, en souriant, le Maître. Est-ce notre faute si nous avons, tous deux, de mauvaises oreilles?'

Another point is that no-communication is in fact not possible, when one considers all behaviour as communication.\textsuperscript{50} For children who do not have complete control of the language system, such non-verbal communication is especially important. And even in such cases, non-verbal codes influence the interpretation of the message.

\textbf{Parent-child interaction} — The most common situation of interpersonal communication for a child is parent-child interaction. It is from his parents, initially mostly the mother, that a child learns to communicate with human beings. Hence, the word mother tongue used for native language. Communication with the family, siblings and adults teaches children to take turns, to change roles, and also the social aspects of what to say to whom. For example, parents may correct children in their utterances; children have to be polite to their parents, but are more direct in their communication with peers. They modify their communication for example, depending on the age of the listener. Gradually, they learn to use indirect requests, instead of plain imperatives. Children also seem to have an early internalised knowledge about how people speak when fulfilling certain roles. This is demonstrated when they play, for instance, teacher-pupil, or doctor-patient.

Research has discerned different parental styles of rearing children. These patterns are called: authoritative, authoritarian, permissive-indulgent, and rejecting-neglecting. Four aspects of parents' behaviour towards their children were evaluated in a research study among which clarity of parent-child communication was one of the studied factors. This type of communication included using reason to obtain compliance or asking the child about his opinions and feelings. The parents of mature competent children were warmer, more loving, more supportive, more conscientious and were more committed to their role as parents. They understood their children's personality characteristics, points of view, interests and motives, and they communicated well, encouraging frank discussions of parental decisions. At the same time they were controlling and demanded mature behavior, guiding their children's activities consistently and requiring them to help with household tasks. They respected their children's independence and opinions but generally held firm their own positions, providing clear reasons for them. This combination of parental control, inductive discipline, and positive encouragement of the child's autonomous and independent strivings was termed authoritative parental control.\textsuperscript{51}

It should be noted that communication is a main component in child-rearing, and the described pattern or style will also be reflected in the way parents communicate with their children. One could probably speak of parents' communicative styles. These styles are not necessarily only a personal characteristic of parents, as communication is a two-way interaction. It might well be that an authoritative communicative style is adopted because of the 'easy temperament' of the children, being more obedient, socially outgoing and independent from the start. On enhancing interpersonal communication, Budd notes: 'We need to think of human communication as


the simultaneous process of communication-to and being communicated-with. Any communicative event, to have the least chance of success, must be viewed as a joint product of those involved in the event. Communication is not a game in which someone must win and someone must lose. It's purpose ought to breed understanding, not control.52

Even for older children, during puberty and adolescence, effective communication and openness within the family are main factors for sound interaction during periods of transitional difficulties and conflicts. Better communication induces greater family cohesion, adaptability and satisfaction of the family members; it plays a vital role in striking a balance between the separateness and connectedness of the individual members.53 Ineffective or insufficient communication and lack of respect can be seen in troubled families, and the resulting problems are the main concern of many child psychiatrists. They are confronted with babies and very young children, who have been victims or witnesses of family dramas and express themselves in their own way. A psychiatrist can communicate with them when he considers the child as a complete being and subject, who should be approached with respect and talked to, regardless of age, as children understand human language because they are human.54

In a communication situation, both speakers bring their personality and socio-cultural background to the communication event; there is a certain symmetry between speakers in their communicative relationship. For children the situation is different: 'In mainstream nuclear families, the clear-cut distinction between competent (adult) and incompetent members (children) and the resulting lack of reciprocity of family relations entails a differential distribution of communication rights. The acquisition of new communicative skills does not automatically entitle the child to increase his input into the decision making process; rather, such rights must be granted in each case. The asymmetry of adult-child relations is further enhanced by the frequent probing of children for their level of acquisition of skills, a socialization practice which is reflected in the abundance of parents’ (known-information) questions in their conversation with children and which produces the asymmetry of the relationship.55 Interaction among children is, therefore, considered as utterly important, although mostly neglected in communication studies, as child-child interaction is far more symmetrical and meets the communicative norm of reciprocity. In such a situation, a child can learn new skills, by observing other and older children and gain new ‘rights’ to participate and have a say in joint activities. Other children can also serve as instruction-giving models and transfer knowledge, apart from parents and teachers.

**Information seeking**

‘Children speak among other reasons to demand things of each other, comment on each other’s behaviour and to correct and contradict each other. All of these acts reflect the interpersonal aspects of language. They also reflect the means by which speakers facilitate the flow of information between them’, according to Foster.

In the communication process, the child discovers that there are possibilities to relate speech acts. To these belong: requests and directives; reinitiating exchanges; speaker corrections; requests for clarification; and, listener corrections. Children can reinitiate exchange when they realise that the communication has failed. They either repeat verbatim, or use a modification of the original utterance. Both in the role of speaker and listener, the child can take initiative for corrections. Children can self-correct an utterance or request a clarification. Such a request can be a simple repetition or a ‘What?’ It is noteworthy that ‘children themselves initiated far fewer requests for clarification than adults, but requests for confirmation were again most frequent, possibly because they involve simple repetition of the adult utterance.’

Seeking information, however, does not necessarily have to take the form of an explicit request for information. In general, these clear requests are easily answered. The seeking of information that is envisaged in this study is the information underlying the essentials of human life. It is noteworthy that most research on child communication in interpersonal interaction is based on the situation in which the adult takes the initiative and asks the questions. In this respect, one may wonder how much this may differ from the situation in which it is the child who seeks information.

In children’s literature, many stories are told. Are they mere fantasy? Hardy argues that ‘narrative, like lyric or dance, is not to be regarded as an aesthetic invention used by artists to control, manipulate, and order experience, but as a primary act of mind transferred to art from life. (...) We dream in narrative, daydream in narrative, remember, anticipate, hope, despair, believe, doubt, plan, revise, criticize, construct, gossip, learn, hate, and love by narrative. In order really to live, we make up stories about ourselves and others, about the personal as well as the social past and future.’ This approach does not simple point to the narrative structure of acts of mind, but suggests the deficiency of the commonly posited antagonism between fantasy and realistic vision.

Children’s stories are about adventures, voyages or undertakings. Even very small children (or animals) undertake something to discover their environment. They meet other beings, wonder what they are doing, ask for clarifications about unknown objects and have numerous small conversations. Sometimes the undertakings are more risky and strategies have to be used to find hidden treasures. One learns to obtain information without risking the disruption of communication. Daily life may seem less risky, but children need many skills to meet the variety of challenges which are posed by communication. One of them is the acquisition of language, which makes their information seeking more elaborated.


Developmental aspects

Very young children are able to make requests for action and for information, and can also provide responses and acknowledgements. However, children aged two to three often do not respond to questions, or when they respond, the responses are not necessarily appropriate. Children learn some rules of communication early, including not to mislead or confuse the other or to be uncooperative. Young children aged three to four take more care when introducing new elements into the discourse for listeners they know are unfamiliar with the topic of discussion.  

Language — Language will not be acquired if children are not exposed to human speech. The very poor results of ‘wild or neglected children’ in language acquisition show that there is a sensitive period for language learning. Language has several aspects, which are useful for a child’s development. Language makes possible the exchange of information, and the communication of ideas. It allows the user to understand the culture and society he lives in, and helps in establishing and maintaining social relationships. It permits classification of events in linguistic categories and aids in reasoning.

Although infants only a few days old cannot produce phonemes (basic sounds to make words) themselves, they can already make a distinction between similar phonemes like ba and da. Babbling starts at five-six months, combining vowel and consonant sounds, but has no symbolic meaning. The first meaningful sounds (morphemes) appear around the first birthday. Children understand more words than they actually can produce themselves. During the second year, they learn many more words, especially as parents are willing to do name-giving games and inform children about what things are called. Children make a hypothesis about the meaning of a word and they test this meaning in using the word, gradually modifying their original ideas about its meaning. These meanings differ from the meanings adults attribute to words, by being either an over-extension or under-extension. Children aged three to four years old begin to understand the figurative and non-literal meanings of words and phrases. Understanding irony is possible at around six years, as children understand that a statement may be false on one level, but true at a deeper level. ‘By the age of about 6 or 7 years, they appreciate that different people can interpret the same information in different ways and that a person can feel one emotion while at the same time publicly displaying an entirely different one.’ Such discernments are the results of gradually learned perspective-taking and role-taking, necessary in communication.

Between the ages of one and half to four years old, a child’s speech advances from two word sentences to complex sentences, joined by ‘and’ or, embedded in another. They are also able to formulate questions. This ability greatly enhances a child’s capacity to ask for more information, for clarification or for help. Children gradually

acquire metalinguistic awareness: they 'repair' incorrect sentences; appreciate ambiguity; and, are able to make metaphors and jokes. 'By three or four years children have the ability to repair overlaps by stopping when interrupted or by repeating the overlapped portions when interrupting.'

To communicate effectively children must learn conversational principles, such as: being relevant, informative, orderly and truthful; and some rules of politeness: not imposing, but remaining aloof; giving options; and, making the other feel good. They must also learn how to relate language to the physical and social context in which it is used. This type of language involves knowing when polite forms of asking are needed, for example when a guest is at dinner, and how to ask for a favour from parents or peers. Using different tones and words in these situations indicates that children are aware of the different social and cultural speech rules in social contexts.

Children acquire language by observation and imitation, but this does not fully explain their competence. Chomsky presumes an inborn brain mechanism, specialised in language acquisition. Others assume that language development depends on certain cognitive, information-processing and motivational predispositions. The language adults use with children provides them with information about the proper way to categorise events.

Communication does not start when language is acquired, as babies communicate before they speak, and the earliest intentional vocal communication may accompany non-verbal gestures. However, communication is an important aspect of language and begins at about age three, when children's spontaneous conversations ask for information, give announcements and include requests. Conversation analysis shows that two year olds did not sustain the topic initiated by adults, whereas at age three, the children could sustain successive turns by adding new information to an adult's utterance. Slightly older children could sustain more extensive sequences. Differences in socio-economic class result in more (upper-class) or less (lower-class) advanced language development. The amount and nature of adult-child verbal interaction, the amount of noise, parental attitudes towards speech, curiosity, modes of discipline and differing group consciousness are influencing factors.

Competence and performance — In some theories, a distinction is made between the knowledge and the skills that a child possesses (competence) and the demonstration of knowledge and skills in observable problem-solving situations (performance). However, children may possess knowledge they do not use, even when the

occasion calls for it. Other research difficulties result from the fact that children often interpret questions in a way that the examiner did not anticipate. Therefore, competence is conceived of as domain-specific rather than applied to broad areas, mostly for reasons of research in need of more precise comparisons.

Piaget believed that active experience in the world is critical to cognitive growth. People are active, curious and inventive throughout life. Thus, children construct their world by imposing order on the information they receive through their senses. This construction is performed by stage-divided operations and adaptation by assimilation and accommodation of acquired ideas.68

Piaget's dictum that children are active seekers of knowledge is accepted by most psychologists, but they believe that activity can be mental as well as physical. Knowledge of information within a content domain is important and people use different problem-solving strategies depending on their familiarity with the material. 'Detailed examination of the ways in which children acquire a variety of different types of languages leads to the inescapable conclusion that the structure of human language is highly adapted to the structures of human perception, thought, and action – and that the capacity to construct human language in earliest childhood must, ultimately, be part of the genetic capacity of our species.'69

Sources
In general, every other human being serves as a source of information for the child. There are, however, sources which are nearby: the parents, and the siblings or extended family. The main sources for children are the explicit messages they receive from their parents. Further, the indirect messages acquired by observing the behaviour of others, and by showing communicating behaviour themselves. Other important sources for a child are peers, which are sources of information about social skills, role playing and one's view of oneself and others. When children meet each other in more organised groups, for example in a club, their number of sources of information widens largely, as does their capacity to communicate and seek information within a group. Adults in the neighbourhood, whether the shopkeeper, neighbour or 'the old men on the bench', form another type of information sources, especially when they know the child, which is still possible in smaller cities, villages or a closed community in a larger city.

The communication with others, in more specialised and formal institutions, forms a special type of communication. But, the final communication always takes place between two human beings, whether it is in a school, a library, a law firm or other professional consultancy, or otherwise. Most people in these institutions are trained in communication or at least in determining what kind of information a child is seeking.

Effects
In general, the child learns to use communicative skills and gains social competence in communicating with others. Many of the effects of intrapersonal communication also apply here because it is in interaction with others that information is gained about the self and for the formation of a view on the world.

By using communication, a child may maintain or deepen a relationship. He will be able to monitor his sources of information and uses feedback to modify his views and behaviour. He gives feedback to express himself in relation to others. In being together with peers, he learns to co-orientate things of common interest. He can find out that different reactions and views are created by the same word or act. In communicating, the child learns to establish contact or to mark differences; he can make choices by attracting or avoiding certain sources of information. He also learns that in a closed or separated environment communication becomes more important.

Learned communication skills also offer the possibility to exert more control over others and the environment. For example, by using symbolic reward or punishment in order to gain compliance. Communication can be used to dominate, influence or direct another in a relationship which is especially the case in hierarchical contexts like parent-child or teacher-child relationships. Communication is also a means of attracting attention and setting interpersonal agendas.

The main points in interpersonal communication are the dependency conditions in which children live: effect dependence and information dependence. Effect dependency refers to adult control of the outcomes of children’s behaviour, to the child’s dependence on parents for stimuli that maintain life and serve as rewards and punishments. Information dependence characterizes the young child’s dependence on others, particularly parents, for information about his world, dependency in terms of both the amount and the nature of information made available to him. Such information dependence operates within effect dependence, and as a result the information monopoly of parents is enormous. A child’s conception of reality influences his processing of new information. His interpretation will partly rely on earlier gathered information. Information mediated by parents provides not only the initial definitions of himself and his environment, but also serves as a frame of reference for later information to be interpreted.

However, the parental monopoly is not absolute and as the child grows older he will encounter information sources outside the family. These new sources can even arise at a very young age, as many children are cared for outside the home. This early confrontation with more adult caretakers will certainly have different effects on a child’s interpretation of information, as he will be confronted with various sources

of information at an earlier stage in his development. To a certain extent the old question in language education reemerges: Does speaking one language at home and another one in society lead to half-speaking or double-speaking.\textsuperscript{73}

Information mediated by other human beings will grow in quantity and variety for a child, when he establishes relationships with peers and others in the neighbourhood and further afield. When these persons provide information which is different from that which a child has gathered at home, his frame of reference will more or less be influenced and modified, especially when the relationships with these others are intense or evoke reactions of identification. Such sources of information serve as models for a child’s interpretation of the world.

\section*{Mass communication}

The third type of communication considers mass communication. From early age children are confronted with various forms of mass communication and form a specific audience.

\section*{Concept}

Mass communication differs in several ways from the previous forms of communication. For example, in comparison to interpersonal communication the message flow tends to be one-way instead of two-way. The communication context is imposed, not face-to-face. In interpersonal communication, feedback is readily available and the possibility of overcoming selective processes is greater in contrast to mass media communication. The latter is relatively rapid in reaching large audiences and its possible effects are found more in knowledge enhancement than in attitude formation and modification.\textsuperscript{74}

The main characteristic of mass communication is its public character. It has no (un)conscious intention to exclude someone: the sender or communicator directs himself to an, in principle, undefined public, potentially everyone. Nevertheless, the communication can be directed at a target group. Such is almost always the case in advertisement, which seeks to reach a mostly more homogenous target group. In mass communication, the only limits to its perception, are technical ones. Mass communication is public communication. According to Fauconnier, the intention of the communicator turns communication into mass communication.\textsuperscript{75}

Both in communication and in mass communication, the use of technology can play an essential role. In the case of mass communication, the mass media have such a role. The mass media are composed of the press, including newspapers, magazines, books, brochures, folders; broadcasting, including radio, television, cable, satellite; and, audiovisual materials, theatre-performances, exhibitions, lectures and

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similar forms of expression. For children, storytelling, puppet shows, circus or music shows might also be included.

**Approaches** — As most research in communication science has been done on mass communication, it was felt necessary to adapt general models of communication or to invent specialised ones. A very short description is the Lasswell-formula, which is a one-way model describing ‘Who says what at which channel to whom with what effect?’ These question-factors have later been extended by others, to include context, intention and mode. Other models take more account of the perception of the receiver and the circular nature of communication processes. Especially in the case of mass media the code system which is used deserves special attention, as this is essential to the receivers’ final interpretation.76

Some researchers have approached mass communication as a social interaction in which an individual makes himself a member of the culture or community. The message as a construction of signs forms the ‘text’ which has to be ‘read’ by the receiver. In this approach, text and reading get a wider sense and are also used for the viewing or hearing of television or radio programmes.77 The content of the messages, the use of symbols and their significance or related values are some aspects of this approach which is based on linguistics and the structure of culture. However, ‘the findings suggest that semiotics and structuralism overestimate the power of the text to promote a dominant or preferred reading and underestimate the ability of readers to make sense of the text in ways that relate it directly to their social situation’, concludes Fiske.78

**Forms of mass communication** — Mass communication appears in different forms, sometimes called ‘modalities’. One of them is the confusing term ‘information’, which means ‘providing messages, reporting’. ‘News’ is considered to be a sub-category of information in the broad sense of information supply. Mass communication also takes the form of intentional guidance and help in solving problems by means of communication, as for example in tax information, consumer information or sex education. This communication is aimed at providing arguments and data on which the receiver himself can decide to follow a certain behaviour in order to solve a specific problem. Such information is often presented in an official campaign on behalf of the government, promoting for example road safety, safe sex, natural sciences for girls, or anti-racism. As a result, the interest of the communicator becomes the focal point of the message.

This type of information leads to a discussion of the next form of mass communication, known as propaganda, which is clearly intended to influence opinions, attitudes and/or behaviour of the receiver in cases of religion, politics, culture, convictions, values and norms. An example is electoral campaigns. Instead of propaganda,

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76. It seems that little attention until now has been paid to the role of the sign-system. See for an exception: Prakke, H., Kommunikation der Gesellschaft, Regensburg, Münster, 1968, p. 132-133.
77. An example of such research in the field of children is: Buckingham, D., Reading audiences. Young people and the media, Manchester University Press, Manchester, 1993.
the more neutral term 'persuasive communication' is currently used. The essence of propaganda remains the same: to persuade the receiver to follow the views of the sender. Such is also the case in advertisement, where the intention of the sender to influence is directed towards the opinions, attitudes and behaviour of the consumer in the context of commercial goods and services.

In all these different forms of mass communication, children often form a target group. The neat distinctions between the various forms of mass communication are in reality often mixed. Cultural institutions have also started to use communication for their cultural products and operate like business centres. Examples include schools, broadcasting organisations, green movements, museums, in the same way as their commercial counterparts publishers, producers, computer firms, etc. Children are confronted with advertisements in their schools, in their lessons (information kits provided by commercial firms), in school-television and textbooks. Another example is a meeting for young people to provide them with information about drugs, before they could enter a free houseparty. These mixed forms of communication make it difficult for receivers to know what to expect and how to judge the value of the information given, as the receiver relates the reliability of the message to the assumed intention of the sender.

Content — In research, the distinction is made between the fictional and non-fictional content of media messages. Content analysis, based on external criteria, has been used as an objective, systematic and quantitative method to study not only the content, but also the cultural context or society in which the text is produced; the communicators, their intentions and working methods; the possible effects on the target groups; and, the language and quality.

The fictional content of media messages is supposed to be somehow related to social life, as an indicator or even as an influence on social life. Such media content can be considered as reflecting the value systems of a particular society, as a mirror of a certain popular culture, and as a substitute for myths and fairy tales. Such can be found in certain genres of film, e.g. westerns; and, television programmes, e.g. soaps or cartoons. They partly reflect and are a product of the collective (un)consciousness. Producers of such messages seem to be uniquely sensitive to the tastes of the audience, and reach a large public on behalf of their commercial interests.

Detailed analysis of fictional content reveals that the messages do not give an exact reflection, but instead distort to a certain extent. The representation of the liberal professions is dominant, while ethnic minorities receive less attention and are treated as stereotypes. Women are underrepresented and are only portrayed in the traditional way. Violence is prevalent and is often presented as a legitimate means to solve conflicts. Moreover, myths about history, social life, sexuality, health and other subjects are pervasive.

Several of these elements form a kind of 'media-logic' or 'grammar' for a specific genre of media messages. This grammar has to be learned by the receivers of the messages, but after it is learned one is no longer conscious of it, as is the case with the learning of one's mother tongue. Television for example derives background, behaviour and schedules from daily life, but transforms them into models, a certain norm for social life. Such models are perceived by the audience as examples which
they can follow. When such models are presented by stars, identification makes the models easier to follow in daily life. Such media messages supposedly reflect the values of social elites, which attempt to control and maintain influence on society. Certain tastes for music or lifestyles might be reflected in the way in which certain products are advertised.

A critical approach to media content considers its main characteristic to be its contribution to stability of the social system, often considered as a capitalist system, which impedes social change and promotes the media and culture industry.

Non-fictional content is found in messages related to the concrete reality or actuality, for example in news reports. Research also takes into account the information flow between states. Content analysis focuses on military and electoral propaganda texts, the mode of reality reflection in the degree of stereotyping, and the objectivity and reliability of the news. The presented content shows a deterioration or impoverishment in relation to reality.79 In a geographic sense, media content stresses the actuality in the Western world and exhibits a preference for countries with large news agencies. Developing countries are only news when there are conflicts, or natural disasters. Within a country, the focus is more on the capital, large cities, and economic centres, than on regional and social life. Media messages contain unusual, sentimental or violent extremes, or in order to gain prestige more serious news.

Distortion in the presentation of persons both in news and in fiction is also prevalent. Women are less visible and have less varied roles. On the other hand, members of political and social elites and official voices are overrepresented. In a larger social sense, minorities and alternative groups receive less coverage; they are differentially marginalised, ignored or stigmatised.80 The emancipation of blacks and women has led to research on their portrayal in the media. The image of the child in the various media is still an undiscovered area in many respects. A lack of studies is an example of the ‘invisibility of children as a social group’ in society.81

**Institution and responsibility** — The remarkable difference between mass communication and other types of communication stems from the relationship between the communicator, a team of communicators and a communication institution. As such, the communicator works in a social-economic and cultural environment which also influences the sending of messages.82 As part of such an institution, a journalist creating an article is part of a process of selectivity and control. Not only by himself, when interviewing or observing others which always includes subjectivity, but also in the context of acceptance by the news agency and the final editing of the article by his editor. During this editing process, various filters are at work. These filters are based on the perceptions of the journalist about himself, the audience and the news value of the story; and, also on the social structure, teamwork, financial position and

82. See for example: McQuail, *Mass media theory*. An introduction, Sage, London, 19943, Chapters 6, 7 and 8 on media structures and organisations.
ideological views of the institution. Even production and distribution put restraints on the final product. The ambiguity between the task of supplying information and commercial interest is not only a difficulty for the management of the media institution, but also leads to doubts on the part of the (critical) receiver of news or information. This ambiguity may also put into question the social responsibility of the media institutions.

Such a fundamental question has been raised by several authors. According to Gijsen: ‘On the question “What is truth?”, many will react with indifference because they don’t care about the answer. Those who do seek the truth, will perforce – as all information is deformed or coloured by human vision – take for granted that they only relatively will be rightly informed.’83 Against the background of the Cold War menace and the use of the nuclear bomb, Toynbee considered the right information to be a question of life and death. He presupposes that something like objectivity exists: all human beings – just because they are human beings – have a certain foundation, a spiritual and ethical basis, in common, on which grounds they can encounter each other and, if possible, cooperate. This basis exists because we recognise each other as human beings, regardless of differences in personality, belief, nationality, race etc. This reciprocal recognition means that human beings have one thing in common: the ability to discern between the truth and falsehood, and good and evil. It forms the bond of humane kinship. The difficult lesson which must be learned is how to understand that one’s ‘sacred’ group-traditions are partly a product of that group’s history and, therefore, relatively true and right. One has to learn to understand another man’s beliefs and not seek to convert the other. ‘Was die Welt heute am dringendsten braucht, ist gegenseitige Nachsicht, die zum gegenseitigen Verstehen führt. Dies ist die einzige Möglichkeit, den eisernen Vorhang des Gruppen-Subjektivismus niederzureißen. Wir müssen ihn niederreißen, wenn wir zu einer uns allen gemeinsamen Bestimmung dessen gelangen wollen, was Recht und Wahrheit ist. Und wir müssen dahin gelangen, wenn wir uns vor der Selbstvernichtung bewahren wollen. Dies ist vielleicht der schwierigste Teil unserer Aufgabe, dahin zu gelangen, daß wir richtig informiert werden. Unsere Information muß so in der Weise richtig sein, daß sie von allen Gruppen der Menschheit als wahr und richtig erkannt und akzeptiert wird.’84 This plea for reciprocal respect as principle of reliable communication and understanding does not have to be confined to mass communication but is fundamental to every form of communication, and reflects the basis of human rights.

Mediation — Because mass communication mostly uses mass media, these media have an influence on the relationship between the communicator and receiver. In fact, the technical characteristics of the media bring about changes in the perception and the experience of the receiver. The ‘same’ message transferred or distributed by

means of radio, television or newspaper will make the receiver experience it in different ways. It is, therefore, hardly possible to compare stories on TV and stories from books, as is done in research attempts to find similarities and differences in the processing of such information.\textsuperscript{85}

The medium changes the message: the receiver does not receive the original message, but the mediated message. The receiver is forced to adapt his perception and behaviour to the type of medium used for the transfer of the message. One of the earliest and most original thoughts about the relation between media and their messages was formulated by McLuhan. He pointed to the nature of the medium used as the factor defining the direction for change in human beings and society. Not the way in which the medium is used, nor its content, but the medium itself is the message.\textsuperscript{86} This is because, according to McLuhan, the media are extensions of the human potential. They are not just instruments which can be used for better or for worse, but a human being is strongly defined by the instruments he has at his disposal. By using instruments or media, a human being amputates his original potential. Every new medium leads to a new self-amputation: the way of living and functioning is transformed and a new sense-ratio forms the new balance of functions. However, this new sense-ratio is a new type of perception, in its turn a new way of thinking; hence a new human being and therefore also a new society are created.\textsuperscript{87} As production and consumption take place simultaneously, this new form of communication offers instant information. With the increased speed of communications technology, people are beginning to live in a global village, where everybody is involved in the other’s business. The contribution of McLuhan to theory of mass media lies especially in their long-term effects on human beings and society.

The idea that mass media and especially television constitute a form of religion has been expressed in various contexts. Doelker describes the \textit{homo religiosus} who beliefs in the stars, not in the universe but in the human form presented on his screen. ‘Heute steigen die Sterne in der vermeschlichten Form von Stars zu den Zuschauern herab. Sie erstrahlen auf dem Bildschirm und schalten sich teilnehmend in das Schicksal der Familie ein. Vor allem die jüngere Zuschauer bringen ihren Idolen teilweise eine Verehrung entgegen, die bis zur Unterwerfung reicht. Man trifft aber noch andere pseudoreligiöse Anwendungen des Zuschauers gegenüber den Erscheinungen auf der Mattscheibe. Da gibt es einem Expertenläubigkeit: Man glaubt einem Experten, der als vom Fernsehen eingesetzter Bezeuger über eine Art institutioneller Gloriole verfügt, mehr als der eigene Erfahrung. Man glaubt auch einem Bild mehr als einem Text; die Bildgläubigkeit beruht auf der sicheren Evidenz des-


\textsuperscript{87} McLuhan, H., Q. Fiore, \textit{The medium is the massage}, Bantam Books, New York, 1967, p. 41.
sen, was man "mit eigenen Augen sieht". (...) Wohlmöglich wird durch den Fernseher eine archaische Form von Religiosität abgegolten.78

Leertouwer comments on this subject of the relationship between media and churches: 'Television is through and through a religious medium, which determines its almost infinite possibilities. Television can create a reality of its own and derives from that reality its specific authority. Besides, television brings a ritual framework in the contact between the sitting-room and the world. Churches know that religion can be the opium of the masses – yes, even more that religion is a means of deafening, if the reality created by religion is not constantly tested by the experiences of people, if it does not critically question its authority, and if it does not mix up the ritual. Only then can the contours of belief become visible from behind the theatre of religion.'89

The use of media may pose a problem of the churches, as the traditional storytellers, as expressed by Hemels: 'Must they be dependent on commercial broadcasting or should they try to gain a place in the control of broadcasting, on its advisory councils and its programmes?'90 In spite of their resistance against modernity, new technologies are well used by fundamentalists, as shows the existence of some electronic churches.

Gerbner has also discovered the similar pattern between mass media and religion. The oldest form of institutionalised public acculturation might be religion. Two recent forms are the product of the industrial revolution: education and mass media. Television has a role which can be compared to the church in the Middle Ages. No emperor or pope could ever dream of having a pulpit in all sitting-rooms, with an inexhaustible reservoir of charismatic priests. Most people watch television in the same way they formerly went to church. They only watch more religiously.91 The consequences of Gerbner’s theory lead to the notion that media are not instruments but form a synthetic and symbolic environment.92

In a reflection on the possible role of mass media to break through the cliche-images of reality, Doorman refers to Bonhoeffer's description of authentic communication. Such communication does not take place isolated from the conditions which provoked it, i.e. the concrete circumstances with concrete human beings. Bonhoeffer then points to the problem of mass media to have to abstract from the concrete situation and to present something general. The question is whether the truth on human reality can be distributed in an abstract, non-specific way via cliches. Plato, Sören Kierkegaard and Karl Kraus in their own way have answered this question negatively. Truth which is not directed on concrete persons is no longer truth. The deep-

Intention — Communication does not happen by accident, but is a purposeful act. As such, the intentions of both sender and receiver in mass communication have to be considered. The importance of the sender’s intention has already been stressed in discerning different forms of mass communication. The purpose of the sender serves mainly three different aims: to extend the receivers’ knowledge; to influence receivers; and, to entertain and relax them. When the intention is to extend the receivers’ knowledge, the sender offers messages that include data or rather ‘consciousness contents’ in general. These messages should add something to the knowledge of the receivers and should lead to them being better informed. Such information can contribute to education and personal development.

If it is the intention of the sender to influence the receivers’ attitudes on certain behaviour, three conditions have to be fulfilled: the receiver has to pay attention to the message; the message has to be understood; and, it has to be accepted. It will be clear that obstacles of various kinds can hinder the process from one phase to the next. The intention serves commercial aims, when the communication process is directed at, for example, the distribution of an advertisement. The messages sent are intended to influence the attitudes and behaviour of the receivers. In such a communication process, the first step of the sender is to draw attention and keep it for a long enough time that the receiver will show interest in the message. This interest should lead to a desire to possess the advertised product. In the final step, the receiver will take action and buy the product.

Mass communication can also be used to provide entertainment which results in passive (listening, reading, watching) or active (singing, dancing, playing) reactions. In the same way that some of the forms of mass communication have become mixed or entangled, so have the purposes of the sender. The primary intentions are mixed with secondary intentions. The intentions to inform and to influence are combined in advertisement directed at healthy behaviour. Information on the nuclear universe is presented in an amusing format, education is presented in a show or comics. The commercial approach and the entertainment form are also directing other forms of mass communication, all in order to catch the attention of the audience and to have their messages accepted. It could also be that unintended effects have long-term influence, as there might also be persuasive force in information supply and entertainment programmes.

For children (and many adults) it will sometimes be difficult to discern the intentions of the sender. Objective information – if that exists – might not be accepted because the sender does not have a good relationship with the receivers, and his message is considered to be intended to influence instead of informing. Conversely, messages from a group of children or young people, reporting a particular discovery, may not be accepted because (adult) receivers have less confidence in their competence to report. As has been shown in Chapter 2, there is little reason to underestimate the capabilities of children, as they show amazing competence, both in regular subjects and in unusual situations. As will be demonstrated in Chapter 4, the competence of children is falsely questioned in a circular reasoning on whether or not to grant them rights.

Regulations — In order that mass communication might function effectively, large numbers of people in different places must be reached at the same time by the media. The content of the messages to be distributed depends upon the political system. Even the rather free disposition of mass communication still presents a certain danger since so many people are exposed to the same information and will be influenced by it. Their uniqueness is not taking into account. It was considered necessary to formulate some legal limitations to mass media as formal institutions, and to stimulate self-regulation of the professionals through the development of an ethical code, reflecting their sense of social responsibility.

Most countries have enacted regulations in respect of children to stimulate certain programming and to prevent children from watching other programming. This prescription is achieved by requiring such programmes to be shown in the later evening hours. Restrictions also cover video, film and, sometimes, access to video-game halls.

Although mass communication does not intend to exclude anyone, technical, economical, financial and cultural factors may prevent someone from actually receiving messages. For children all of these factors are significant.

Children as a target group — Children are a target group for mass communication as is shown by special programmes on television – on radio these programmes are disappearing in some countries – in children’s magazines, books, the child’s page in newspapers, computer programmes and other media. All kinds of books are published especially for being used by children or in communication with them, for example picture books or story books. Children’s books have been introduced about 200 years ago, but a different type, namely to learn the alphabet was produced about 400 years ago and mainly directed towards necessary skills for Bible-reading. Moral education was also the intention of educational literature, as shows a famous booklet by Erasmus of Rotterdam95 which found imitation in Europe, presenting ‘Children’s Mirror’, to teach children, who could learn to read Latin, their mother tongue and morals at one time.96 The idea that children’s books should educate or that they

96. Bredal, N., Barne Speigel, Vingaard, København, 1568.
should be regarded as a form of literature to be treated as every other form of art, has never lost its debaters.

As the intention to reach children by literature found support in the establishment of libraries, either public or school libraries, the significance of children as a target group for production increased. Children’s books in libraries form a large part of the total collection of libraries, as children form about half of the population using the library.

Recognition of children as a target group has also led to publication of special magazines and newspapers or columns; the production of theatre and film for children; and, all kinds of activities supporting these forms of expression and culture. Products of mass communication are also used in schools or especially prepared for education, like school radio and school television programmes. In the new communication provision of Internet not only discussion groups for children are established, and penpal-systems for pupils developed, but also Websites created where they can learn or enjoy themselves with all kinds of computer programmes.97

Adults differ in the way they react to children’s media use. Whereas most adults use a double standard for themselves and children, ‘dagegen stehen die Programm-Macher. Sie brauchen Einschaltquoten und Zuschauer, die an “ihre” Sender gebunden sind. Kinder sind gut für die Zuschauerbindung, für die Einschaltquoten und für die Werbung. Deshalb werden aus dieser Ecke die Kinder ganz anders eingeschätzt. Sie gelten als zwar kleine, aber volkemmene Wesen, die genau wissen, was sie wollen und mit Bedacht das aus der Fülle der Programme auswählen, was für sie gut ist.’98

The reasons why children are a target group of mass communication go beyond educational, informational, or amusement purposes. More and more, children have become a special interest group with respect to commercial communication. Children are consumers, willing to spend their own pocket-money and earnings. In addition, children have an influence on many family decisions, and are also considered as future consumers, who should, at an early age, be brought into contact with certain trademarks. This commercial approach has renewed the discussion on how the freedom to advertise and the protection of children can be balanced. Children in school age need protection as they cannot yet discern fiction from reality; and this is exactly why advertisements which mix editor aspects are difficult to discern, even for adults. Groebel comments: ‘Problematisch ist dabei nicht die marktwirtschaftliche Orientierung des Programms; problematisch sind die Mechanismen, die die aus gutem Grunde gesetzlich verankerte eindeutige Trennung zwischen relationellen Teilen und Werbespots außer Kraft setzen. Der Verweis auf angeblich mündige Kinder ignoriert dabei die entwicklungspsychologischen Prozesse: Wo schon Erwachsene häufig Probleme bei der klaren Unterscheidung zwischen Werbebotschaf-

97. A survey of Websites for children can be found at Berit’s Best Sites for Children: http://cochrano.com/hoste/index/k_sites.html.
ten und andere Informationen haben, sind Kinder dazu noch sehr viel weniger fähig.99 In various countries professional codes have been introduced to underline social responsibility. One solution proposed is the introduction or addition of an advertising code, especially designed with children in mind.100 The target group’s character is commercially stressed by the forming of ‘media-derived’ clubs which keep the attention on the images and figures introduced by the various media.

Information seeking
The purposes of mass communication have been described above, but these goals were related to the intentions of the sender. Receivers have intentions as well; they are expressed in their expectations in using mass communication, especially the different forms of mass media. The gratifications sought by the receivers in the use of media, in order to satisfy their needs, are not necessarily the gratifications achieved, from an objective point of view. Further, these expectations and gratifications do not have to correspond with the intentions of the sender. Actual use and gratification are different. TV-watching, for example, often leads to boredom, but is nevertheless continued.101

The intent to seek information is thought to be based on the need to create and maintain a self-image. Another motive is the expected usefulness of information, whereby an inner costs and effects sum is made in order to decide whether the effort and possible real costs are worth the expected results. Information seeking is also motivated by expectations of social usefulness, which means that one seeks information to form an image of others.

It remains to be seen whether these motives which are mentioned in general research, are the same for children. When asked why they liked to watch TV most children answered: to pass the time, as diversion, to learn about things, to learn about myself, for arousal, for relaxation, for companionship, and as a habit.102 It could be that children’s motives for reading are somewhat different, as imagination and involvement are especially appreciated.103

The mass media are pervasive, accessible and attended by children of all ages. Even young babies are put in front of a televisions screen, or have picture books read to them. Children also listen to fairy tales on audio-cassette, or attend pop concerts. In general, the gratifications derived from media use are supposed to be the acquisition of information, reinforcement of personal identity, integration, social interaction and relaxation.104

100. Kinderen en hun ongelijke strijd tegen de commercie, Consumentenbond, ’s-Gravenhage, 1994, p. 34.
The use of mass media can lead to gaining information because one wants to know more about what happens in the neighbourhood, in society or the world at large. People will also try to find advice on practical matters, seeking information to form their opinions and decisions. Such knowledge will also make them more secure. Curiosity and personal interest are other needs which are sought to be fulfilled by the media. Information may also be gained in order to learn or for self-education.

In using mass media, human beings may seek reinforcement of their personal identities, a sense of self-value. They can identify with well-known media-persons and seek models for behaviour. It may also help them to gain more insight on themselves, as they compare presented problems with their personal reactions and solutions. Children confronted with mass media will encounter role models of social life and obtain a mediated view of the world. The mass media, especially the pictorial media to which the child has early access, enable him to experience vicariously the world far beyond his own backyard. Through the media he may confront systems of norms and rules very different from those espoused not only by his family, but even by his local community.105

Children may use mass media to learn more about the world outside their immediate neighbourhood; they can use media to organise their experiences and to construct frames of references. Stars and heroes offer opportunities for identification and models of attractive behaviour. In general, more models are presented to boys than to girls, which also show a larger variety of occupations.

Mass media use can also replace physical company of other people and give one a feeling of belonging to a group, or at least part of the audience; watching television is no longer a family affair, but performed individually. Children may also learn about the thoughts and actions of others and thereby develop social empathy. What they have seen or heard in mass communication, may also offer an item to talk about with their peers or in school and give them a feeling of belonging to the social group. It is clear that media use also relaxes, entertains, fills unscheduled time, is emotionally stimulating, and provides an escape from daily problems and conversations.

**Patterns of media use** — Although the previous subjects have tried to treat mass communication in general, a discussion of media use should discern the different types of media. However, as with most subjects within communication science, it will not be possible to present some general ‘laws of communication’, or hard facts regarding media use by children. Various differentiations should be made, according to age or development, type of media and country. Additional variables in use patterns include: sex, I.Q. (USA-research!), family and socio-economic status. As viewing television seems to dominate media use by children – at least in Western and other countries where television programmes are available – research also reflects this dominance. In general, research of media use includes television, radio, comics, newspapers, movies, books, magazines, video and computer.106

A remarkable phenomenon with respect to new forms of mass communication, like the introduction of the television or CD, is the tendency to partly replace older media. The newest shift – at least in the USA – is that children are watching less television and devote more of their time to the computer. The general tendency with regard to new media is that after an increasingly shorter time, a kind of new balance between all media forms is established.

In most countries where television has been introduced, research has shown a decline in reading. Some researchers take the relativistic position that television viewing is an acceptable substitute for leisure reading, others propose a media-socialisation and education, encouraging a more selective use of the media. Apparently, children’s reading ability has not declined, but only their willingness to do so. One of the reasons could be that watching television, using a non-notational symbol system, requires less effort and is, therefore, preferred to the detriment of more demanding, notational symbol systems like reading, which requires experienced skills. Children start earlier using audiovisual media than they can start reading.

In general, children spend about half of their leisure time on media. Television viewing dominates media use among the younger children because of its early accessibility. Regular viewing starts at the age of two for about three quarters of an hour, up to two hours or more a day for five years olds. School-age children also spend time on radio, comics, movies, books, newspapers and magazines, viewing more programmes until about the age of 10-12. After a decline in viewing hours which continues until the age of seventeen, television use increases again. Within a sample of children of a certain age there can be a large difference: some children are, for example, heavy viewers, others are not.

At an early age, children are also confronted with books, which serve as sources for storytelling by their parents. Storyreading increases until the early school years, when the child starts to read himself. At that age, most storyreading by parents declines or stops at home, and only takes place elsewhere in special circumstances: in school, the library or in youth organisations.

Picture books, which are provided at an early age, form another introduction to print media. Children also can easily find comics in most magazines and newspapers. The pictures are the attraction of comic book reading which starts before entering school and ... sometimes never ends, as an enormous variety is nowadays also developed for adults. Comic books seem to be read more by boys than girls.

As soon as children learn to read, most of them start to read everything that comes into view. However, the use of books, newspapers and magazines does differ, partly due to the attitudes of parents and the family environment. Reading mostly declines when a child completes school. This decline is due in part to the fact that

books make up of most of the educational materials at school, but also because of the large variety of activities available during leisure time.

At the same time that children begin to read books, they also start to read magazines and continue to do so at least shortly beyond their school days. Reading newspapers is the last medium which engages a child. The use of newspapers starts at around age seven and increases for one in two children until daily newspaper reading begins when they grow older. Radio listening could start at an early age, but radio programmes for young children seem to have disappeared. During their school years, radio is greatly used, but always in combination with other activities. This type of use is possible as adolescents listen to mainly popular music. Movie going starts as a family activity, but soon turns into an activity for groups or friends, developing into a social meeting point for teenagers. Videos and computergames are newer media which have easily found their way to children, and are used both individually and in company. Computergames appeal to a variety of skills at different levels.

In general, there are differences within the age group patterns related to IQ (according to older USA-research). Television viewing varies inversely with IQ, whereas print media use varies positively. Children with higher IQ's either stop being heavy viewers between age 10-13, or they are very energetic, using all media intensively. In the same way, these children cease reading comic books, whereas children with lower IQ's continue. It could even be that there is a negative relationship between creativity and the use of pictorial media, and no relationship between creativity and the use of print media.111

The use of media by children can also be related to the socio-economic status of parents, at least in some countries. Pictorial media are used more and print media are used less by children in families with lower socio-economic status. Media use, and print media use in particular, seem to take place earlier among children of well-educated parents. The high use of comic books occurs in families in which the parents have both a lower educational level and socio-economic status.

Content preferences — When media content is roughly divided into fiction and non-fiction, or oriented towards fantasy and oriented towards reality, then it is clear that children first encounter fantasy content in using media. Regardless of the type of media, books, television programmes or films for young children, all are oriented towards fantasy. When all children start to read and show more interest in the world around them, they also encounter non-fiction content in media-use. In general, there is a development towards more use of print-media and towards reality-content, but not necessarily substituting audiovisual media or fantasy-content. Substitution takes place in the case of media especially directed towards children - books, magazines, television programmes - which are abandoned to the favour of content for adults, in the case of TV at a rather early stage, about eight years of age.

Favourite children's programmes are cartoons, puppet shows, animal stories and adventure stories. School-children enjoy variety shows, adventure, science fiction

and westerns. During this period, they switch to more adult-type programming such as situation comedies, crime programmes and popular music variety shows. In fact, children learn very quickly to watch adult programmes. Serious programmes, news and public affairs, are only watched when children have reached high school age. This new interest is congruent with their interests in newspaper reading. German research notes that children in homes with cable-TV, are heavier viewers but see less children’s programmes. Action and humour make their programmes favourite ones.112

With respect to comics, the first interest is in funny animal stories, then fantasy adventure and later classic comic books. Yet, it seems that comics are used for several purposes, entertainment, instruction and information, as is the case for adults. Radio is mostly used for listening to music, but children, like most people do not switch off the dial when there are advertisements and short news spots during the broadcasting of the programme. Reading the newspaper often starts with reading comic strip pages in newspapers; later children turn to sport section or editorial columns. In the newspaper, content reality orientation dominates, which might be the reason why children turn rather late to the use of this medium.

In general, the preference for and/or use of various types of content is closely connected to age-related needs and interests. Preferences and selection are also related to sex – girls preferring popular music and fashion; boys choosing adventure and excitement in sport and science; and, IQ. Children with higher IQ’s try all media earlier and move earlier to reality content, making more selections in media content based on taste. Reality content and print media are also preferred by children in families of parents with higher socio-economic status and a better education, although these children tend to start with children’s material in all media.

Related factors — Patterns of media use can be explained in terms of ability, interests and available time. Important factors are family socialisation patterns, including both the media-behaviour model and the value-systems explicitly and implicitly communicated to children; and, individual, personal and social problems.

The value system, corresponding to class is often represented in the parental media behaviour which serves as a model for children. It makes a difference whether curiosity is valued or not, and whether self-improvement or enjoying life for the moment are demonstrated as values. Children learn to use the media and mainly follow their parents in attitude and behaviour.

When much weight is laid on interpersonal relationships, this may also influence media use, with a preference for television in general. When the expression of the child’s own ideas and the challenging of others’ beliefs are stressed, there is a tendency to use the media for information, reading more newspapers, watching more public affairs television, but less television in general.

In the case of interpersonal problems, for example with family or peers, media behaviour is affected. Frustrations, anxiety or insecurity may lead to seeking an escape

which will easily be found in the media, especially the fantasy-content. This also applies to situations in which there are parental problems; children try to escape such confrontations and comfort themselves by viewing alone. When parents, according to the child, have higher aspirations for him than the child himself has, it is likely that the child will turn to heavier media-use. This attitude is even stronger in the case of other conflicts; and for children with highly antisocial or aggressive tendencies. Such children seek to escape and to obtain vicariously some of the satisfaction not afforded by their real-life situation.

The environment in which the child grows up influences what kind of media are available and how much of them can be used. In such a way, norms of media use are also provided within the social environment and affect the child’s needs and interests. However, the child’s individual needs and capabilities determine, within this environment, what he can and will do with the media. The media may play an important role in the process of socialisation, but the child’s mass media behaviour is to a large extent a product of socialisation.

As there are more factors of socialisation, media are rather sources of contributory effects, than the main cause of effects. In general, research has become more cautious in stating causal relations between factors of media use, but a number of related factors are found. Nevertheless, these factors have to be proven valuable in all kinds of contexts.

*Developmental aspects*

As children grow older their needs and interests change. Moreover, their capacities, capabilities and skills develop due to maturation and experience. Gradually, a child learns how to communicate, and to select and use different sources of information. Cognitive development and the ability to read change a child’s capacity to deal with symbolic information. When a child is better able to understand language and to process new information his position towards media changes, i.e. what he brings to the communication situation, and likewise what he may take from the media use. Part of what children take from media content is based on observational learning. All children can imitate simple models, but older children are better able to represent, remember and rehearse the more complex social models that they have observed in mass media.

There are also differences in attention span. Younger children tend to focus on the speaker rather than on the content of his speech in an audiovisual presentation; whereas, older children can focus better on content and ‘essential’ information in for example a film. As a result, age-related differences in what children understand from mass media messages are also observable.

Gradually, children learn to discern between different media and develop expectations based on experience and explicit or implicit instruction from parents or sib-


lings. In general, they expect entertainment from television, and 'authentic' information from textbooks. As they grow older a larger variety of mass media is used. With their increasing ability to read and to understand media messages, children spend more time on various media and have a bigger say in which programmes they can watch and what books they read. Since parents serve as models on how to use media, children take over media use patterns from their direct environment. This also applies in the case of more demanding media, such as reading.

Age-related differences also exist because children growing older can process more information. They are also more able to focus on essential information, and to ignore non-essential information. Younger children take in more environmental or non-essential information (which they can recall even better than adults), paying less attention to the relative value of the different information inputs. They are also more affected by separate items in media presentations than the moral or final result.

Younger children have less internalised sanctions against aggression and could, therefore, be more affected by media content in which violence is shown. For such younger children, the distinction between fantasy and reality is harder to make. There is a development of selective attention, an age-related process of learning to learn. Complex or more subtle cues, for example motives, justifications, complex cause-effect relationships, are only perceived at older age.

**Reading ability** — The early ability of children to discriminate between sounds, to make phonemic differences helps a child to acquire reading skills. Nursery rhymes, poems and self-made rhymes are, therefore, the first step to reading. Children differ in the speed with which they learn to read, as this ability relies on both maturation and experience. Retarded readers show, for example, less word recognition skills, have difficulties with short-term memory and have less phonic skills which means they can not read non-words. Skilled readers use sight vocabulary, perform phonemic analysis and have a more contextual way of reading.¹¹⁵

Reading ability gives the child a skill which enables him to become acquainted with what other human beings have thought, felt and known. Being able to read opens up the world of books, magazines, subtitling in films, advertisements, etc. The research in social sciences on reading is vast and lively, dealing with the questions of how reading skills are acquired, differences between more and less skilled readers, and the influence of instructions on reading.¹¹⁶ International research has shown cultural differences in reading abilities, probably due to differences in methods, such as more or less free reading; reading aloud; and, instruction; facilities like school libraries; and, extracurricular reading.¹¹⁷

Reading is primarily facilitated by one's parents' attitudes towards reading, whether they read themselves, and to their children, thereby engaging them in the

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reading process. The 'natural use' of text, for example in a shopping-list, could bring about a natural approach to reading. In order to understand texts, knowledge of the outside world is necessary. Children as young as four use this ability to understand stories and have 'story grammars' in the sense that they have 'scripts' of familiar events in their lives. 'Even the youngest children are likely to remember more important points than unimportant ones, but picking them out explicitly or even rating them as “very important” or “very unimportant” is hard even for children of 10 or 12. This might make it harder to study texts effectively: we do know that children’s efforts may be inappropriately directed in memory tasks. Increasing knowledge of texts and of the world, and better metacognition, will be both involved in the developmental advance that children make.'

Although, on one hand, reading might bring more information and knowledge about the outside world, it requires, on the other hand, a prior knowledge of that world, in order to make the child understand the text. Lack of experience or basic information will influence a reader’s engagement. 'While formal instruction by parents is not efficacious with young children, parental awareness and ability to capture opportunities to teach children informally seem necessary for development of concepts and skills related to written language.'

**Sources**

The child is an active participant in the child-media relationship. What he takes from television, newspapers or the movies is a factor of what he brings to them. To the extent that mass mediated communications are used as sources of information, the definition of the world that the child develops will also be a factor in the picture presented by the media. This is for example also true for the ideas children develop about justice, crime and punishment. Media like comics, television programmes and newspapers are mentioned by children as sources of information to form their views on these matters.

In a rapidly changing world, media may provide children with more functional information than his parents. Parents have less time, and are not aware of all the current developments. Therefore, society’s institutions, school, mass media, and libraries must step in. However, the information that parents and their children acquire from the media also contains a commercial motive. The message is that to consume is to be happy, and mental effort should be avoided. Such implicit messages might be included in the picture of the world the children are constructing.

The sources in mass communication are twofold. First, the content of the messages sent by the sender can be taken up by the receiver or seeker and processed. The channels used are numerous and all have their typical characteristics which make a

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varying appeal to the child's senses, attitudes and skills. The other definition of source refers to the sender which is often a media institution like a broadcasting company.

The sources in the first sense are print media, audiovisual media, performances, etc. These are also called mass media in limited sense. In a broader sense, mass media are radio, television and the press. Media can also be categorised according to, for example, the production of signals, channels, signs and directions. In the case of children, one could also make a distinction between general mass communication and media messages especially for children, including youth programmes, magazines, newspaper-pages, PC-programmes, internet-references and clubs. Children will probably search for information in them, according to their interests in such specialised media.

A metaphor

Television as a great and shiny cafeteria from which children select what they want at the moment... the very nature of television makes for a minimum of variety in the cafeteria; the nature of human beings makes for great variety on the side of the children...

We are all aware that young children prefer dessert to vegetables, that health is a function of diet and diet a function of what is available, and that an exclusive diet of cafeteria food may well lack necessary nutritional value. In short, although the child is the active party in the cafeteria, there is still cause for concern over the menu.122

One could add to this metaphor the responsibility of adults, parents and others, to provide for healthy food and a varied diet. Adults who are specialised in preparing and sending mass communication messages to children, such as authors, journalists, and producers have a responsibility to the child's information-seeking process. The same is true for those involved in the distribution of information, for example the movies, or provide a place to seek information, for example the public library.

**Effects**

The effects of mass communication have been a subject of concern for the general public and a large area of research. One can discern different types of effects.123 There are psychical effects on opinions, attitudes, behaviour, feelings, fantasy and the subconscious. Effects on the senses, nerves and muscles are possible physical results of mass communication. One could also discern the type of receiver or the level on which the effects take place and speak of individual, institutional, societal or cultural effects. Other research has taken account of the question whether effects are


intended or unintended by the sender. In the case of children, it is also important to look at the term in which effects take place, and whether these effects follow a certain pattern, which might be detectable by long-term research.

The general supposition about the effects of mass media was that they exert a great influence, from sender to receiver in a one-way relationship, like a transmission belt. It was thought that there was a direct relation between the content of the message and the effects on the receivers. The receivers were seen as passive, helplessly under the influence, as if being treated by a giant hypodermic needle. Because the mass media were reaching the masses, the effect was supposedly even greater.124 This opinion which lasted from about the first World War until the end of the second World War was followed by a period in which a limited effects-model dominated. In the mid-sixties, the expected effects were increasing and now in the nineties they are once again considered powerful.125

Mass communication is considered to be more effective when the communicator is aware of the importance and relevance of the information to be transmitted to the interests, values and image of the public. Such awareness is not only based on the images of the public which the communicator has in mind, but also on real public feedback: telephone calls, letters, discussion lists, etc.

Mass communication messages have no direct, automatic influence, but intermediate factors like opinion leaders play a role in the perception and interpretation of the receivers. These selective processes may lead to an adaptation of information to the receiver’s existing system of reference. The messages in, for example, typical girls journals are interpreted in terms of relevance for the construction of the girls’ social identity.126

The significance of mass communication is relative as there are other factors of influence on opinion and behaviour, such as knowledge, emotions, norms, stereotypes which are results of interaction with physical and social environment. The effects of mass media cannot be isolated from the influences of family, neighbourhood, friends, church, school and clubs. Their influence seems to be positive rather than negative: they are more socially stabilising than socially disrupting. However, this influence can be different during periods of uncertainty, or social, economic or political crises.127

Mass media, however, are a powerful means of announcing things and make people think and discuss; they set or condition the public agenda and define or propose a definition of the situation. Views and images provided by the mass media serve as a framework of knowledge. ‘There is a growing body of opinion and a good deal of evidence that the effects of the mass media are much more to be found in the provision of (...) the “pictures in our head”, the frames of reference and the cognitive detail about the world.’ 128

The largest effects are in those areas where the receivers do not yet have knowledge and developed attitudes. If one has experience, a mass medium will have less influence, because the individual has a certain control, as he has been a witness himself. Where media can be controlled by the receiver’s own experience they are not always believed, but in the cases where people have no direct experience they do believe the media.

Since people cannot personally experience every part of the world, they have to rely on what is told by the media in order to have a world view. Public storytellers are in the first place the media. But, they do not tell everything which can be told: they make selections. When the news is silenced, people tend to start informal mass communication in the form of rumours. The selections do not vary much among journalists and programmers. Even the design of news programmes on TV seems to follow a fashion which surpasses the different national broadcasting systems.

As a result, the information made available by mass communication is largely second hand or even third hand. The possible impression that the information is not close to first hand experience is counteracted by ‘live’ interviews, ‘reality shows’, live audience, and, lately reality-TV. Nevertheless, every broadcast follows a script, either of a totally planned sequence or of a ‘free style’ programme. Compared to adults, children are more unfamiliar with many areas of life and the world, so they have a larger tendency to believe what is published in the media and shown on the screen.

**Children and social learning** — In the case of children, the most studied subject is the question of the effect of violence in the (pictorial) mass media on children. The attention was first drawn to comics and film, later to television programmes and video. Computer games and use of the Internet will probably follow. The motive for studies is the supposed injurious effect on children when they see tough news reports or violent, criminal scenes in audiovisual entertainment. They may consider these scenes as normal behaviour and could become insensitive to the suffering of others, or imitate the actions of popular stars and even learn criminal tricks. Some researchers have theorised that watching such TV-programmes might reduce, others that it might stimulate criminal behaviour. Using media in the presence of an adult who supports or condemns the action in a media presentation affects the possible imitation of such action by children.

Although research results are often contradictory, partly due to difference in methods and circumstances – the position in North-American society differs for example from the one in European countries or Third World countries –, some conclusions can be drawn. When children watch violent programmes, and when they do not see sanctions against aggressive behaviour, it is likely that, under the influence of these programmes, they develop a tendency towards aggression. Psychological and social predispositions to aggression reinforce such tendencies, in the same way as unfavourable circumstances like deprivation, family problems, and drug abuse.

Conversely, some pro-social, favourable influence can also be derived from certain programmes, and stimulate children to be helpful, friendly and somewhat self-disciplined. Even here other factors play a role in the effective results. Although there are more institutions which contribute to the enculteration and socialisation of
children, mass media play an important role as they are always present and available and have taken over roles of other institutions, such as parents, extended family and the church. Paraphrasing the words of Gerbner: they are the main storytellers. According to Gerbner, television is the universal, ritual storyteller from the past in new clothes, with everybody at its feet, accompanying all from the cradle to the grave.129

It seems that there is a lack of research on long-term effects. Nor has there been much longitudinal study, which follows children in the course of their development. As a result, more has been said about age-related differences than age-related change. As the introduction of new media takes place rapidly, there are few situations in which effects before and after the introduction of a medium could be studied, as only very few children and families are without these media. Nevertheless, it could be interesting to study the motives or reasons for this minority situation, to see how these families communicate and what effects their different patterns of leisure time have on children and their development.

Other effects can be noticed on the way in which children spend their time. Media fill the bulk of time when no structured activities are scheduled, when 'there is nothing to do'. There is probably also a change of bedtime; children go to bed later but they go right to sleep instead of reading a bit. Other effects, for example on homework or reading ability, differ with culture and the different experiences and expectations children bring to the media.

Although the effects of mass communication on emotions are convincing, research on long-term effects are lacking. Effects do exist, for example, in the case of unusual threats; when a child closely identifies with media figures; or, in the case of unexpressed fears. Emotional response depends on age, experience and involvement. Heavy viewers of crime related programmes may also build defence against overstimulation and become insensitive to the suffering of others also in real life. Long-term effects are not known.

Learning effects are incidental as television and mass media in general are not programmed to teach. In general, the mass media are better in bringing amusement than in achieving educational aims. Most mass communication is lacking in good pedagogical organisation like: simplicity of presentation, clear organisation of material, motivation of learners, knowledge of results and practice. The attempt to be educational in such mass media irritates children. However, print media are accepted by them as justifiably educational. They prefer textbooks not comics, for ‘authentic’ information.130

Nevertheless, learning from the mass media takes place as children are presented roles, attitudes, behaviour and norms which all contain information about what to expect from and how to behave in the social world. As these presentations are often stereotypes, they will influence the perception and judgement of children with respect to similar situations in real life. Children can remember parts of films and other audiovisual presentations many months after attending them.

Conclusion

Children have from their very beginning various possibilities to communicate and to seek information. Such communication processes take place at different levels: within themselves (intrapersonal); with others (interpersonal); and, with mass media (mass communication). These types of communication can be discerned, but are interrelated and all contribute to the child’s understanding of the world and himself. For example, that which a child views in the media, he will discuss with his peers, and that which he has experienced and reflected upon during a holiday he will write in a school journal. In all these processes, a child is continually communicating with himself: he selects and processes information; he constructs and modifies concepts; and, he learns new words related to new content. Essentially, the child is giving meaning to all the messages received. All communication processes effect his development and contribute to the process of growing up.

In the research models and concepts of communication, the position of the sender has dominated. Even when the behaviour of the receiver seems to be studied more, it looks as if this is mainly in the commercial interest of the sender. The receiver is seldom portrayed as a living human being with a unique possibility to share something meaningful with others. When focusing on the child’s perspective, the concepts of communication processes should not only be changed from sender to receiver, but also from receiver to seeker-perspective, and put into a context which takes account of a child’s changing needs for and interpretation of messages related to his developmental process as a human being.

Children can communicate as human beings even before birth. Their information seeking process starts early. Concepts of the world around them and about themselves are formed, partly before they can speak. Gradually, they learn to also use language in a social context and start communicating with others, talking, writing and reading. Children are curious and have many questions to ask. Their competence in language, in communication and in forming concepts seems continuously underestimated. In using mass media children have to learn the ‘language’ of the medium, and in interpersonal communication they have to learn the codes and habits of the cultural community in which the communication takes place. Children might have also been underestimated as active communication partners, who can take initiative and therefore be regarded as respected information seekers.

Sources play an important role in the information seeking process of the child. The sources provided are the child’s own perceptions and interpretations in intrapersonal communication; the experiences and knowledge of other human beings; and, the mediated messages of mass communication. These sources can take different forms from conscious silence to an abundance of interpersonal contacts or a cacophony of media impulses.

The central question related to the information process is: Does the child find information in communication which can help him to grow up and become an authentic human being? The child encounters sources of information in three types of environment: the natural, the social and the symbolic. These environments are filled with stories of mankind in different forms. Such stories were presented by the various figures in the Prologue.

In the natural environment, and in intrapersonal communication, they take the
form of archetypes, which a human being encounters in his life. In the social environment, and in interpersonal communication, they are the concrete human beings one meets, but they are disguised in a social role. In the symbolic environment, and in mass communication, these figures are presented in sometimes exaggerated forms, clichés, and sometimes disguised. This is not only visible in the media, but also in older forms of mass communication, for example in a puppet show. In such a performance with the audience physically present, the symbolic value of the puppets is tangible in the reactions of the children. One could regard a part of the traditional content of mass communication as being put into new media forms, for example video or computer games. Therefore these mass media can be called the modern storytellers, as they have taken over the roles of former institutions and forms of mass communication.

When living authentic really is authentic, it can only be experienced by the child himself: intrapersonal communication comes closest to the source of information for developing as an authentic human being. Authentic life can only be communicated by those who are authentic human beings themselves. This is the challenge for all human beings in communicating with each other: to be an authentic source of information. Such a challenge leaves no exception in the case communication takes place with children, on the contrary. As authentic life can be overshadowed by a function or role in social life, children have the advantage as they seem not to play a role and not to count as a social group. Seen in this vein, children are valuable sources for others. In this respect, it could be not the child but the adults who say: 'Tell me!'

The question whether mass communication can be a source of information about an authentic human being and authentic life can be answered negatively, due to the characteristics of the media. Human beings as such have become invisible in most forms of mass communication. In using mass media, information is mostly second or third hand. Technical aspects dominate and mediate the message. The individual information seeking process will always meet sources produced for mass use. Mass communication leaves little room for two-way communication, also in some new interactive forms, as even these are pre-programmed and cannot really respond to all, verbal and non-verbal, feedback from the information seeker, as is the case in interpersonal communication.

Guidance in seeking information is necessary as children are at an ever earlier age confronted with a larger variety of sources. The former monopoly of parents in supplying information to the child seems to have been taken over by school and mass media. As the latter enter the home, they influence the family environment and the context of communication. Children need a flexible, but supportive frame of reference for the constructive interpretation of various messages. They have to learn to use the media rather than be used by them. Nevertheless, parents form the first frame of reference, for social behaviour and media use. As a result, children learn

132. McLuhan seems also have been on this trace, at least he wrote: McLuhan, H., W. Watson, From cliche to archetype, Viking, New York, 1970.
from them how to communicate and the value of different sources of information. These basic patterns are sometimes difficult to modify in later life, for example in the case of reading. With regard to the use of new technology the need for guidance seems to be on the side of the parents and adults in general. The parental role in giving guidance in moral attitudes towards media use becomes less credible when they have no experience of new media themselves. In such circumstances the child may think: Tell me another!

Seeking information and interpreting messages requires a favourable context provided by parents and others, whether at school, in the street, in shops or elsewhere, for example clubs or libraries. This means that a child is offered time to communicate and time to process information for himself. Very often it also means that the child needs a place for himself, especially in the case of reading. A place of silence is beneficial to that process.133

Much of the interpretation of messages depends on the social and cultural context in which communication with children takes place. This environment, which is partly formed by parents and other adults, and their attitudes towards children, greatly depends on the adults' awareness, as communicating requires attentiveness and creativity. As Dewey said: 'All communication is like art.'134 When parents and adults have the sensitivity of artists, and can fully consider and accept children as human beings, there will be mutual respect in communication with them. This respect will form the best base on which to communicate as authentic human beings.
