

**LINGUISTIC COMMUNICATION AS
ACTION AND COOPERATION**

A STUDY IN PRAGMATICS

by

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TABLE OF CONTENTS

P R E F A C E	vi
NOTE ON NOTATION	ix
Part I Action And Cooperation	1
1 INTRODUCTION	1
1.1 Ways of doing linguistics	1
1.2 Linguistic theory and pragmatics	1
1.3 An outline of the thesis	2
1.4 Methodology	3
2 ACTION	5
2.1 Action and behavior	5
2.2 Reasons, grounds and motives	5
2.3 'De dicto'- 'de re' like phenomena and the difference between observer and agent	9
2.3.1 'De dicto'- 'de re' and 'de intentione'	9
2.3.2 Misleading circumstances	10
2.4 Intention, significance and the meaning of action	10
2.4.1 Intentions, causality and consciousness	10
2.4.2 Purpose and meaning	13
2.5 Identification of action	13
2.5.1 Disambiguation and specification	13
2.5.2 Plans and parcels of intentions	14
2.5.3 Specification and basic actions	15
2.6 Rationality	16
3 CONVENTION	19
3.1 Consensus and arbitrariness	19
3.2 Institutionalization and conventional beliefs	20
3.3 Contextual dependence	20
3.4 Constitutive and regulative conventions	21
3.5 Descriptive prescriptive	23
3.5.1 Observer and participant	23
3.5.2 Prescriptive-descriptive and regulative-constitutive	23
3.6 On the nature of linguistic descriptions	24
3.6.1 Correct usage	24
3.6.2 Variation	25
3.7 On the nature of linguistic conventions	25
4 CONSCIOUSNESS OF THE MEANING OF ACTION	28
4.1 Role-playing	28

4.2	Socialization and internalization	30
5	NORMAL RATIONAL ACTION AND COOPERATION	32
5.1	The typical agent	32
5.1.1	Some of the traits of a typical agent	32
5.1.2	Principles, norms and assumptions of normal rational agenthood	34
5.1.3	Seven principles of normal rational agenthood	34
5.1.4	Degrees of rationality and normality	38
5.2	The socialized agent and cooperation	38
5.2.1	Norms and conventions	38
5.2.2	Cooperation	40
5.2.3	Mutual consideration	41
5.2.4	A definition of ideal cooperation	42
5.3	Conventions, cooperation and the principles of normal, rational action	43
5.3.1	Convention and cooperation	43
5.3.2	Ideal cooperation	44
	Part II Communication	48
6	INTRODUCTION	48
7	THE SENDER	49
7.1	Indicators	49
7.2	Indicative behavior	50
7.2.1	Behavioral indicators	50
7.2.2	Classification according to motor activity	52
7.2.3	Expressive function	52
7.3	Manipulation	54
7.4	Display	55
7.4.1	Acts of display	55
7.4.2	Representative and non-representative display and displayors	55
7.4.3	Concealed display and deception	56
7.4.4	Manipulatory intentions, content, intentional depth and total action meaning	57
7.4.5	Matter and quality	58
7.4.6	Content-quality and content-matter	59
7.4.7	Intended content - and information indicated to receiver and observer	61
7.5	Conventionally regulated behavior, display and meaning	61
7.5.1	Conventional behavior	61
7.5.2	Conventional behavior and meaning	62
7.6	Display, context and budding cooperation	62
7.7	Indicators, behavior, behavioral indicators, manipulation and display	63
7.7.1	Implicative relations	63
7.7.2	Communicative activities as intentional aspects of the same behavior	64
7.8	Unintentional behavioral indicators and display	64
7.8.1	Manner intentions and unintentional behavioral indicators	64
7.8.2	Display and intentional controllability	65

8	THE RECEIVER	66
8.1	Apprehension	66
8.1.1	Influence and apprehension	66
8.1.2	Pure apprehension and pure display	66
8.2	Double communication	67
8.3	Sources and manners of apprehension	67
8.3.1	Sensory modalities, memory, imagination and intuition	68
8.3.2	S-interpretation	68
8.3.3	Inference	68
8.4	Further intended reactions in the receiver	69
8.4.1	Emotional states, attitudes and behavior	69
8.4.2	Belief, understanding, acceptance and conviction	70
8.4.3	Propositions and belief	70
8.4.4	Understanding	71
8.4.5	Acceptance and conviction	73
8.5	Apprehension, understanding, s-interpretation and belief	73
8.6	Summary	74
8.7	Preliminary remarks on the relation between sender and receiver activity	75
9	FULL-BLOWN COMMUNICATION'	76
9.1	Scaring as manipulatory display	76
9.2	Displayors, signs and d-assumptions	77
9.3	Signals	78
9.3.1	Second order display and signals	78
9.3.2	Reference and signal-content	78
9.3.3	Signalling and conventional action	79
9.4	Full-blown communication	80
9.4.1	A definition of full-blown communication	80
9.4.2	Grice's notion of 'meaning _{nn} '	81
9.5	Communicative activities and entities	82
9.6	Display, signal and social self-consciousness	84
10	CONVENTIONALIZATION	86
10.1	Conventionalized display	86
10.2	Symbols	87
10.2.1	A definition of symbol	87
10.2.2	Conventional correctness	88
10.2.3	Conventional force	88
10.3	Conventional content	89
10.3.1	Mode, mood, conventional content-matter and conventional content-quality	89
10.3.2	The traditional category of mood	90
10.4	Some further effects of conventionalization	93
10.4.1	Soliloquy	93
10.4.2	Intended communicative content, conventional content and apprehended content.	93
10.5	More regarding the correspondence between intended content, conventional content and apprehended significance	96
10.5.1	Break of the tie between intention, convention and apprehension	96
10.5.2	Sender intention and conventional content	96

10.5.3	Intended content and apprehended significance as functions of conventional content	97
10.5.4	Indirect speech acts	97
10.5.5	Irony	98
10.5.6	Common background assumptions	98
10.6	Non-signalled symbols	99
10.6.1	Non-communicative symbols	99
10.6.2	Display of symbols	99
10.6.3	Use and mention	100
10.6.4	Display concurrent with signalling	100
10.7	Summary of the relations between symbols and communicative activities	101
10.7.2	Indicators, signs and symbols	101
10.7.3	Sender and receiver activities and symbols	100
10.7.4	Symbol vehicles as communicatively relevant	103
10.8	The genesis of symbols	104
11	FULL-BLOWN COMMUNICATION AS IDEAL COOPERATION	105
11.1	Normal rational senders and receivers	105
11.2	A definition of ideal cooperative full-blown communication	107
11.3	The ideally cooperative sender	109
11.3.1	Intentional and purposeful cooperative communication	109
11.3.2	Voluntary and free cooperative communication	110
11.3.3	Considering the motivation, pleasure and pain of the receiver	110
11.3.4	Consideration of the receiver's possibility to perform competent and adequate actions	111
11.4	The receiver as a trusting cooperator	113
11.4.1	Constructive cooperative interpretation	113
11.4.2	Misunderstandings	114
11.4.3	Metaphor	115
11.4.4	Flouting and clash	115
	Part III Communicative Acts	117
12	INTRODUCTION	117
13	THE ONTOGENESIS OF COMMUNICATIVE ACTS	118
13.1	The relation between child and adult communication	118
13.2	Indicative behavior	118
13.3	Manipulation and display	118
13.3.1	Manipulation	118
13.3.2	Display	119
13.4	Ritual, convention and communication	120
13.4.1	Ritualized games with vocal parts	120
13.4.2	Conventionalized manifestations of manipulation	122
13.4.3	The mood of pointing and reference	123
13.5	Holophrastic utterances	124
13.6	Unraveling of presuppositions and differentiation of behavior	126
13.7	Summary of the holophrase	127

13.8	A tentative taxonomy of some of a child's early communicative and linguistic abilities	127
13.9	Speculations on developmental sequence	130
13.9.1	Hypothetical developmental sequence	130
13.9.2	The holophrase and communicative development	131
14	COMMUNICATIVE ACTS	133
14.1	The felicity conditions of a communicative act and the application criteria ' of a communicative activity term	133
14.1.1	Genuineness, competence, adequacy, ethicalness, conventional correctness and success	133
14.1.2	Application criteria and truth conditions	134
14.2	The performative hypothesis	136
14.3	Orientation, intention and reaction	138
14.3.1	The sender- or receiver-orientation of an action	138
14.3.2	A test for intentionality and receiver reaction	139
14.3.3	The communicative status of threatening	140
14.4	The semantic field of communicative activity verbs	141
14.4.1	Some of the instrumental parameters	141
14.4.2	Instrument, convention, adequacy and competence	143
14.4.3	Expression of emotion	144
14.4.4	Expression of attitude	144
14.4.5	The status of attitude terms	145
14.4.6	The purposive plan and manipulatory intentions	146
14.4.7	Contextual requirements on speech acts	148
14.4.8	Institutionalized performatives	150
14.5	Three other approaches to communicative activities	151
14.5.1	Austin's account of locutionary, illocutionary and perlocutionary acts	151
14.5.2	Searle's theory of speech acts	154
14.5.3	Bühlers notions of symptom, symbol and signal function	157
15	CONVERSATION AND LANGUAGE GAMES	158
15.1	Some data on conversation	158
15.2	Language games	160
15.3	Factors determining language games	162
15.4	The 'indirect recursiveness' and 'pushdown-stack' character of language games	164
16	SYNTAX, SEMANTICS AND PRAGMATICS	168
16.1	The classical distinction	168
16.2	Conventional content and truth conditions	169
16.3	Completion and specification	171
16.4	Syntax, semantics and pragmatics reconsidered	172
	BIBIOGRAPHY	173

P R E F A C E

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But, of course, there are certain persons and institutions that I feel more indebted to than others. First of all I would like to thank my father and mother without whom, for good or bad, I would never have been around to write this thesis. Secondly, I want to express my gratitude to the two institutions of learning which I feel have meant most to my adult intellectual development - the Departments of Linguistics and Philosophy at the University of Göteborg. I want to thank all the members of these two departments for many stimulating arguments and discussions through the years. Further, I would like to thank the Department of Linguistics at the University of Massachusetts, Amherst, Massachusetts for enabling me to spend a very inspiring year there. I profited especially from participation with Barbara Partee, Terry Parsons and Robin Cooper in their NSF workshop on Montague grammar and in Ed Riceman's seminar on artificial intelligence and natural language processing. Also, I would like to thank David Schwartz, Michael Sinclair, Justine Stillings, Elan Drescher and John Nerbonne for stimulating discussions about semantic and pragmatic problems.

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A NOTE ON NOTATION

In order to complicate matters as little as possible, *italics* and quotation marks have been used in the following way. *Italics* are used when a term is mentioned' (as opposed to 'used') but also generally when new or important concepts are introduced. Quotation marks are used for quotation but also as 'scare quotes'. For quotes within quotes, double quotation marks are used.

Part I Action And Cooperation

1 INTRODUCTION

1.1 WAYS OF DOING LINGUISTICS

There are very many ways of doing linguistics. However, I believe the following three to be particularly worthwhile:

1. Depth study of one language; trying to describe and explain in as much detail as possible the features of a particular language. To the extent that this is done in the pursuit of general linguistic principles, this pursuit is part of general linguistics, but to the extent that its purpose is purely descriptive of a certain language, it can most profitably be carried out in the various language departments.

2. The general study of several languages and language families in order to obtain a theory of what is universal and what is not universal, of what is possible and what is not possible in human languages.

3. The study of linguistic behavior in relation to other human characteristics. This implies an interdisciplinary approach with language as its focus, using subjects like psychology, sociology, anthropology, philosophy, biology, artificial intelligence and neurophysiology in order to get a better picture of language and the uses of language.

This thesis falls within the third type of approach. It is explicitly interdisciplinary in its aim, trying to integrate linguistics with subjects like psychology, philosophy, social psychology and sociology. Within all these disciplines, the study of language use has been claimed to be important. Terms like 'symbolic interaction', 'speech acts' and 'linguistic function' have been used within the five disciplines to denote similar phenomena. I therefore believe it could be of some interest to try to provide an analysis of linguistic communication which draws on all of them. My thesis is thus directed at clarifying some of the aspects of what Charles Morris 1938, 6-7, called pragmatics or the study of language use (see also section 16.1).

1.2 LINGUISTIC THEORY AND PRAGMATICS

The empirical base for linguistic theory is ultimately communication between human beings. The linguist, by acts of abstraction, creates a theory about certain aspects of communication. For example, through one type of abstraction, he can claim that there is an abstract entity - language - which is involved in communication. Through another act of abstraction, he could claim that such things as syntactic structure, meaning and sound are involved. In the widest sense, pragmatics involves the study of all these aspects of communication. In a more restricted sense, which I will be concerned with in this thesis, it

involves only those phenomena that communicators consciously (see sect. 2.4.1) have to take into account in order to communicate.

The primary reasons for being interested in pragmatics have to do with two of the canonical criteria of scientific methodology, exhaustiveness and simplicity. Linguistic theory will never be exhaustive if it does not provide an account of as many as possible of the phenomena that influence linguistic communication. There is a need for a mapping out of the phenomena that determine language use. This is the primary task of this thesis.

The study of pragmatics can also be valuable from the point of view of simplicity. It is well known from the study of speech recognition¹ and also from other areas of linguistics that the doctrine of the 'separation of levels' (i.e. phonology, morphophonemics, morphology, syntax and semantics should be kept separate both in description and explanation) leads to great difficulties for both description and explanation. Levels are kept pure and separate at the cost of cumbersome descriptions and explanations or no explanations at all. Successful description and explanation require integration of levels. Pragmatic information, i.e. information about aspects of communication hitherto neglected by traditional linguistic theory, is often essential in such integration, to get a better picture of the components both in isolation and in interaction with each other. The study of pragmatics is therefore a desideratum for linguistic theory in providing increased exhaustiveness and simplicity, and for the study of human behavior in general, since it could make the integration of linguistics with its neighboring sciences easier.

Besides making linguistic theory simpler and more exhaustive, there are perhaps also some practical applications that can be gleaned from a study of pragmatic phenomena. It seems pretty clear that language learning is facilitated by integration of the language learned into practically applied action. The question is how this best should be done. For this, we need a theory relating language use to social action in general.

Further, it also seems clear that communication and especially linguistic communication is one of the most important factors behind the development and change of emotions and attitudes (including cognitive ones). Communication can be liberating or function to suppress. We need to study how and why, if we are going to be able to create a type of communication which maximizes the chance for personal growth and enhances the opportunities for effective communication in family, school and life in general. For work in this direction that can well be classified as pragmatic, see Watzlawick 1967 and 1976, Satir 1968 and Bernstein & Henderson 1969.

1.3 AN OUTLINE OF THE THESIS

Thus, the aim of this thesis is to provide a description of some of the phenomena that determine linguistic communicative interaction. It is my belief that this can only be done by placing linguistic interaction in relation to human action and interaction, especially cooperation, in general. Therefore the thesis is divided into three parts.

¹ Thus, Woods writes (1975, 2): 'We take as a point of departure that the information required to produce the correct interpretation of an utterance is not completely and unambiguously encoded into the speech signal, but rather that knowledge of the vocabulary and of syntactic, semantic and pragmatic constraints of the language are used to compensate for uncertainties and errors in the acoustic realization of the utterance.'

Part I gives an account of some of the characteristics of human action, of conventions for action and interaction, and of how we, on the basis of being acting agents ourselves, come to understand through socialization the actions of other individuals. Finally, I try to summarize the norms of human action as an ideal type in a set of principles for individual and cooperative human action.

Part II gives an account of the various communicative activities of a sender and a receiver. What are the different types of communicative intentions, and how are they organized? What are some of the different ways in which a receiver can react to information and how are these different types of reaction connected? How are the activities of sender and receiver interconnected? On the basis of my discussion, I give a definition of what I have termed full-blown communication. The type of communication I take to be paradigmatic for normal linguistic interaction. Finally, I discuss how conventionalization affects the activities of sender and receiver and the interaction between them.

Part III provides a number of applications of the framework given in Part I and Part II. First the ontogenesis of communicative activity in children is discussed and I try to give a hypothetical account of the development of communicative acts. Second, I consider communicative acts in the light of my general account of action and try to provide a description of their structure and function. On the basis of this description, I then criticize some of the earlier theories of so-called speech-acts. Thirdly, I discuss how cooperation affects communicative interaction, and consider the structure of different types of speech interaction and language games. The last chapter is devoted to a discussion of some of the implications of pragmatics for the traditional division between syntax, semantics and pragmatics.

1.4 METHODOLOGY

The methodology used in this thesis could perhaps be characterized in the following way: like much of linguistic and philosophical methodology, it is an example of what J. L. Austin 1956, 182, called 'linguistic phenomenology', i.e. trying to become explicit about certain parts of one's common sense know-how by paying close attention to how various aspects of it are expressed in ordinary language. Although I will claim much wider applicability for my analysis,² it should not be forgotten that, in the last resort, all my intuitions about such common sense know how, have arisen through my own membership of certain socio-cultural groups.

A good deal of attention will therefore be paid to ordinary language expression which codify the concepts we are interested in. This is not done because I believe that ordinary language provides an infallible norm - as will be seen, I will not shun stipulative definitions when I think they are called for, but it is done because ordinary language, as far as availability and convenience goes, is an unsurpassable basis for explication of the kind of concepts I am interested in.

² This is partly because I really think my claims concern basic non-culture bound phenomena, and partly because I believe, with Popper 1963, 228 ff., in the importance of falsifiability.

A study of this type should therefore preferably be supplemented by investigations of a greater and more representatively chosen number of persons in order to check that the phenomenological analysis possesses the intersubjective validity it aims at. However, such investigations serve no purpose until one has clarified one's intuitions to such a degree that reasonably interesting hypotheses, deserving to be tested, can be formulated. One of the goals of this thesis is therefore to serve as a basis for such hypotheses.

Since the transmission of information is a type of interaction or rather cooperation, and cooperation involves mutual action, we will start by looking at some general traits of action. This will turn out to be important for an understanding of communication both from the point of view of the sender of communication and from the point of view of the receiver of communication. By working descriptively from a phenomenological point of view based on common sense and ordinary language, we will try to get at the factors which determine both our understanding of our own behavior and our understanding of the behavior of other persons. We will then try to show that it is precisely through an understanding of this sort that the various types of communication become possible.

We claim that an analysis of this type is at least one valid way of building a theory about communication. However, it should not be denied that one could perhaps provide an analysis both of action and communication which did not pay much attention to the ordinary usage and common sense intuitions pertaining to these phenomena. Whatever such an analysis would look like, one thing is certain, its degree of applicability to everyday communication will depend on to what extent it will be connected with phenomena we all are familiar with from everyday life.

Thus, I do not want to claim that a non-phenomenological analysis of the phenomena I want to treat is impossible, but I do want to make the following claims:

First, a phenomenological analysis of phenomena in everyday life has a value of its own, since it makes explicit a certain aspect of reality.

Second, such an analysis should make a non-phenomenological analysis easier since it would make available descriptions of phenomena and connections between phenomena that an analysis of the latter type would sooner or later have to pay attention to. After all, one of the most important goals of science is to furnish explanations of ordinary common sense intuitions.

2 ACTION

2.1 ACTION AND BEHAVIOR

The first thing I want to note concerning human behavior is the distinction between behavior which is connected with *intention*, and behavior which is not connected with intention. I will call behavior which is connected with intention *action*. I think this is reasonably well in accordance with ordinary usage, and it is also in accordance with more technical usage, see e.g. von Wright 1971, pp. 83-6. This means that action and behavior are implicatively related so that all action involves behavior, but there is behavior which is not governed by intention and thus cannot be viewed as action (e.g. reflex-like behavior).

I basically regard intentions as phenomenologically primitive, but will in what follows try to clarify their experiential status in various ways, even though I will also attempt a non-phenomenological characterization of them. (See section 2.4). However, none of the characterizations which I provide satisfy me sufficiently to call them definitions. Initially, we can say that an intention is something which directs behavior towards an end, or better, something which gives the behavior a purpose.

Before we return to intentions in section 2.4, we shall consider a number of other concepts which are involved in our understanding of action and will turn out to be relevant for the analysis of communication. We will start by considering reasons, motives and grounds for action. Suppose that A asks why B acted in a certain way. Even if we ignore answers which mention causes of B's behavior of which B himself was not conscious at the moment when he performed the action, there are many possible ways in which B might answer the question. He might answer by giving *reasons*, *grounds*, *motives* or *intentions* connected with his actions. Let us look at how these concepts are related to each other. Relying on ordinary usage and common sense, I suggest the following analysis, in a slightly stipulative vein:

2.2 REASONS, GROUNDS AND MOTIVES

Both *grounds* and *reasons* for action are circumstances which are apprehended by somebody as underlying action. The connection between circumstance and action must be seen as natural or plausible by someone. This, among other things, means that the connection between the circumstances and the system of beliefs,³ feelings and attitudes of the acting individual is such that the circumstances can be supposed to give rise to a need, want or desire (craving, appetite, longing, wish etc.) in the individual to act in a certain way. It further means that it is natural and plausible to suppose that the need, want or desire will give rise to a will to act in a certain way. (I am not using *wish* and *want* since they are ambiguous between being ready to perform an action, and having or being disposed to

³ For epistemological reasons (see Sextus Empiricus 1933 and Naess 1968), I will use the labels *system of beliefs* or *stem of assumptions*, rather than *system of knowledge*, for the cognitive attitudes which an individual possess about the world around him.

having certain states of consciousness without being ready to perform any actions whatsoever.)

Further, it is plausible to assume that the will to act is transformed into an intention to act in this way and that, finally, the intention, in a natural and plausible way, is associated with the behavior that is exhibited by the individual. The behavior can thus be regarded as an action which intentionally realizes a certain act of will, desire, need or want occasioned by the circumstances we have called grounds or reasons for the action.

Besides those circumstances which are associated with an action in the way suggested here, the desires, wants, needs or acts of will can themselves, to the extent that they give rise to action, be regarded as reasons or grounds for an action. When they do, they will be referred to as *motives*.

Compare the following four sentences:

- (1) The reason that Bill drank water was that the weather was hot.
(the hot weather)
- (2) The reason that Bill drank water was that he was thirsty. (his thirst)
- (3) The reason that Bill drank water was that he wanted to drink water.
(his act of will)
- (4) The reason that Bill drank water was that he intended to drink water.
(his intention)

We can nominalize both the description of the action and the description of the reason for the action as in (1'), (1'') and (1' ''):

- (1') The reason for Bill's drinking water was the hot weather.
- (1'') The reason for Bill's drinking water was that it was hot.
- (1' '') The reason that Bill drank water was the hot weather.

If we use *grounds for*, nominalization of both action and reason seem to be obligatory, at least for some speakers of English. (The ⁺ indicates an unacceptable sentence).

- (5a) The grounds for Bill's drinking water was the hot weather.
- (5b)⁺ The grounds for Bill's drinking water was that it was hot.
- (5c)⁺ The grounds that Bill drank water was the heat.

I think these syntactic differences confirm the semantic intuitions that *grounds for* is used to indicate circumstances that give rise to action, while *reason* can be used in this manner, but also to indicate propositions (a proposition can be viewed as the content of a statement⁴ or arguments (a set of propositions logically tied together) that motivate the action in question. *Reason* will therefore be the general term and *motive* (as indicated above) will be used in a more specialized way.

⁴ For a discussion of the concept of proposition see e.g. Land 1974. If desired, propositions can be viewed as is customary in intensional logic, i.e. as functions from possible worlds to truth values (see Lewis 1971).

If *reason* is used to refer to a proposition or an argument, it must in some way provide evidence for the description of an action under discussion. In this sense, *reason* can also be used for support of attitudes and beliefs. By support for an attitude or action, is meant that the kind of natural and plausible tie we have discussed above between reason and action now holds between what is claimed in the proposition or argument, and the action or attitude. If a reason of this type supports a belief, then what is claimed in the proposition or argument in some way increases the chances that the belief is true or correct.

Different languages draw the line between circumstantial and propositional support in different ways. English has a word which covers both viz. *reason*, and a special phrase viz. *grounds for*, to indicate circumstantial support. While, for example, Swedish has a word viz. *anledning* which is preferably used for circumstantial support - although it applies to propositional support in special contexts. It has another word which can only be used for propositional support viz. *skäl*. Thus *skäl* and *anledning* can be contrasted as in (6) in Swedish. Something of the same effect can be achieved in English by contrasting *reason that* with *reason for*.

- (6) *Anledningen* till att Pelle tror på Gud är att hans föräldrar var religiösa, men detta är inte hans *skäl* för att tro på Gud. Hans *skäl* för att tro på Gud är att det måste finnas en första orsak.

The *reason that* Pelle believes in God is that his parents were religious, but this is not his *reason for* believing in God. His reason for believing in God is that there must be a first cause.

Actually, the analysis of (6) is more complicated. Not only can the terms *reason that*, *grounds for* and *anledning* be used for circumstantial support of which the agent is conscious. The terms can also be used to indicate a *cause* of which the agent is completely unaware. In fact, this is a perfectly plausible reading of the terms *anledning* and *reason* in (6).

The most natural way to eliminate this reading in English seems to be to use possessive constructions. Compare (7) and (8) below:

- (7) The reason why Bill is buying ice cream is that it is hot.
(8) Bill's reason for buying ice cream is that it is hot.

(7) is naturally interpreted as giving the cause for Bill's behavior - a cause which does not at all have to function as a conscious reason for Bill. On the other hand, the most natural reading of (8) is precisely as a statement about a conscious reason, i.e. implying consciousness on Bill's part both of a circumstance and of a natural tie (via one of his motives) between the circumstances and his actions.

Let us now return to sentences (1)-(4). While sentences (1) and (2) give totally acceptable reasons for Bill's drinking water, sentence (3) does not contain such information. This seems to be because we, under normal circumstances, take for granted that other individuals are free agents exhibiting voluntary actions. It is therefore not very informative to indicate as the reason for a certain action that the person who performed it wanted to perform it. It is roughly what one would say if one could not think of any other reason. Sentence (4) is from this point of view even worse. Not to intend to perform the action one

is performing is so serious that the behavior one exhibits under such circumstances is either disqualified as action and just counted as behavior, or its intent is re-interpreted. Consider for example 'A did not throw himself on the floor, he tripped' and 'A did not wave to you, he was chasing flies', respectively (see also section 14.4.8).

To provide somebody with the information that the factor is present which turns a certain type of behavior into the action it is claimed to be, is completely uninformative, given that the action which is claimed to take place, really takes place. Such information is only relevant to the degree that an action is suspected not to be what it is claimed to be. If this is not the case, it gives a redundant and contentless, and thereby unacceptable, impression.

Sentences (1) and (2) show that, besides those circumstances which give rise to motives (wants, needs and desires), we can count the motives themselves as reasons. They give us increased information about those circumstances that have resulted in a certain action. We therefore require from a reason that it should not only be naturally tied to an action through a motive (or by itself being a motive), but that it also should give us more information than merely that the action in question has taken place.

Claiming that an act of will is a reason for an action barely, and only under special conditions, meets this requirement. Characterizing a specified action as intentional never does, as far as I can see.

The circumstances thought of as reasons do not need to actually obtain. It is enough that the agent believes that they do. See sentence (9):

- (9) The reason Bill did not bring any winter clothes was that he thought that it was just as hot in Sweden as in Hawaii.

Further, it is not necessary that the circumstances already obtain, either actually or in anyone's belief, at the moment when the action takes place. Also, the circumstances that the agent believe will come about through the action (the effects of the action) are counted as reasons. We will call the main effect that an agent desires and believes will come about as a result of a certain action, the *purpose* of his action. The purpose of an action is often counted as one of the reasons for the action. A common characteristic of the circumstances that are thought to obtain already when an action is initiated, and of those that are meant to come about through the performance of an action, is that, to be regarded as reasons for the action, they must be tied to one of an agent's motives in a natural and plausible way.

Propositional reasons (reason that) can, just as well as circumstantial reasons (reason for), pertain to the expected results or effects (purpose) of an action, rather than just those circumstances which obtain when the action is initiated. The important thing is that the kind of natural tie which we have discussed above, obtains between the desires, needs and wants of the agent and the intended effects (purposes) of the actions.

2.3. 'DE DICTO'- 'DE RE' LIKE PHENOMENA AND THE DIFFERENCE BETWEEN OBSERVER AND AGENT

2.3.1 'DE DICTO'- 'DE RE' AND 'DE INTENTIONE'

Before going on, I would like to discuss briefly a general difficulty in describing action and communication. Such descriptions are often complicated by superimposed 'de dicto' - 'de re' like phenomena. The terms *de dicto* and *de re* are traditionally used to refer to an ambiguity which characteristically arises in connection with uncertainty about whether a certain linguistic expression occurs in direct or indirect speech. The ambiguity can perhaps most clearly be brought out with definite NPs. Consider (10) below:

- (10) Marvin said that the local cheerleader was cute.
(11) Mary Smith is cute.

If the NP *the local cheerleader* was the actual phrase used by Marvin, then the NP in (10) is a 'de dicto' report of how Marvin referred to the girl in question. But if Marvin actually uttered something like (11), (10) would not be a direct report of what Marvin said as far as the NP is concerned. We would instead have the speaker's interpretation and rendering of what Marvin said. Since the speaker's rendering of what Marvin said is done by virtue of the things referred to rather than by virtue of the way Marvin referred to them (what he said), this second type of report is usually called a 'de re' report. So, the 'de dicto' reading of (10) gives what the speaker, reported on, actually said, while the 'de re' reading gives the reporting speaker's interpretation of what was said.

This type of ambiguity has many traits in common with a more general difficulty which arises also in the description of action. The difficulty concerns the way in which an observer's interpretation of agent's behavior can differ from the agent's own experience of his own behavior. Imagine a case where a narrator of a certain event involving an agent does not have the same opinion about what the agent's intentions, purposes and reasons were as the agent himself. As an example, consider (12) below:

- (12) The reason Bill went to the ice cream parlor was the chance of meeting Doris, but he himself claims that it was the possibility of buying ice cream that was the reason.

Now consider the first half only of (12):

- (13) The reason Bill went to the ice cream parlor was the chance of meeting Doris.

A listener would, upon hearing (13), not know if the narrator is giving what he thinks are the agent's 'real' reasons 'de re', whether they be conscious or not, or whether he is trying to describe the conscious reasons of the agent 'de intentione'. In a sense, one could say that the ambiguity involves not knowing whether one is dealing with a phenomenological or a psychoanalytical (with subconscious intentions) account of the agent's intentions. Since I can see no plausible way of distinguishing subconscious intentions from subconscious causes in general, and we are interested in intentions from a phenomenological point of view, i.e. in intentions that are conscious, we will henceforth discount this type of interpretation.

2.3.2 MISLEADING CIRCUMSTANCES

Another problem here is that a narrator can always be misled by what he perceives as natural ties between circumstances, motives, intentions and behavior. This applies to him whether he is describing the agent's 'real' subconscious intentions or his overt conscious ones. A narrator can always give false descriptions.

There are many reasons why a narrator's interpretation can differ from what an agent actually intends to do. Let us consider a case where the narrator is misled by the fact that the behavior occurs in a situation where it can be naturally tied to some purpose or point. If I wave my hand in the air when a fly is buzzing around my head, an observer might think that I mean to chase away the fly, even though I was really fanning myself.

The opinion, mistaken or correct, that an observer forms about the meaning of a certain action, is thus normally situation dependent (*context-dependent*), which only means that the observer has inferred that, in certain situations, agents seem to have certain intentions more often than others. However, no matter how plausible and natural such ties are, the meaning the agent intended his action to have can only be determined by finding out what the actual intentions of the agent were. These are what a normal non-psychoanalytic narrator is trying to describe when he is describing action.

When we later will be dealing with conventional meaning, we shall see that the classical 'de dicto' - 'de re' ambiguity is reinstated. Since the meaning an agent actually intends his behavior to have does not have to be identical with the conventional meaning of his behavior, there is now an opportunity for an observer to describe correctly 'de re' or 'de intentione' his intentions as differing from those he has exhibited 'de conventione'. This is the case, for example, in irony.

Thus, we will continue to pursue, entirely from the agent's perspective, the analysis of action related phenomena, only noting that the ambiguity of the term *reason*, discussed in section 2.2, has as a consequence that a narrator's 'de re' use of *reason* does not just express what he thinks the agent's 'real' intentions are, but allows him to disregard the agent's conscious intentions altogether.

2.4 INTENTION, SIGNIFICANCE AND THE MEANING OF ACTION

2.4.1 INTENTIONS, CAUSALITY AND CONSCIOUSNESS

How is intention related to reason, effects and purpose? We will begin by considering the concept of intention again. First, I want to distinguish between (A) intentions which are connected with actions and (B) intentions which are not connected with actions, i.e. states of consciousness of a certain type, where the degree of consciousness could be very low (see Husserl 1913).

In what follows, I will limit my interest to intentions of type (A). There are at least two components in such intentions:

1. The direction of behavior towards a certain end.
2. Consciousness of 1.

Both 1 and 2 need clarification. Point 1 can be interpreted in various ways. I will briefly consider two of these, a) a completely phenomenological interpretation and b) an only partially phenomenological interpretation involving causality. In the phenomenological interpretation, I only indicates that the agent, when he acts, has a state of consciousness of a certain kind which directs his actions to a certain end. If we attempt a causal interpretation, we are immediately in more troubled waters, since the relationship between cause and intention is notoriously problematic. It has, for example, been suggested that intentions necessitate a teleological concept of causality.⁵ As this issue is not directly relevant for the purpose at hand, I will only say that nothing so far has convinced me that a normal concept of causality⁶ is incompatible with intention. (This is of course not a very strong position, and which so far does not exclude the supposed necessity for teleological causality). Thus, I do not find it at all unreasonable to claim that an agent's conscious intention causes his behavior through a causal chain from a supposed neurological substratum of his intentions to his behavior. His behavior can in its turn have various effects on his surroundings. These can then be said to have been more or less indirectly caused by his behavior, depending on how far away they are in the chain of effects.

The version I have given here of a non-phenomenological account of the relation between intention and behavior could perhaps be called an 'interactionist' approach. I have chosen this approach rather than, for example, an 'epiphenomenalist'⁷ approach, since I find it more compatible with the sort of common sense approach to intentions that I am pursuing here.

The somewhat vague phenomenological claim that an intention is a conscious direction of behavior could perhaps be combined with a causal type of approach in the following manner. Besides conscious direction, we require that some behavioral disposition is activated. To intend to open the door is not just to be consciously directed towards a state of affairs where the door is open. It is to be consciously directed towards this state of affairs by being in a state of readiness to realize the desired state of affairs through a certain type of behavior. An intention governing action could therefore be said to be a conscious readiness to realize certain purposes (expected effects of the behavior). What has been called readiness could be identified with an activated behavioral disposition (whatever that really is) and the intention would then be the conscious coupling of the activated behavioral disposition with certain expected outcomes of the behavior in question.

'Activated behavioral disposition' should not here be taken in the very strong sense of actually being able to perform the behavior. E.g. imagine a soldier standing on guard in the Finnish winter war, who is intending to go off duty but who finds that he cannot, since his leg has been frostbitten without him noticing it.⁸ It is perfectly reasonable to claim that the

⁵ Arguments for and discussion of such a proposal can be found in von Wright 1971, part III, and Taylor 1964, chapter 1.

⁶ This will hold whether I choose a Humean analysis of causality (Hume 1748, section IV) or a more modal one (Lewis 1973).

⁷ For a discussion of the various conceptualizations of the relation between mind and matter see e.g. Shaffer 1968.

⁸ I am indebted to Erland Hjelmquist for this example.

soldier intended to do something he was not able to do. Thus the activated behavioral disposition connected with an intention must be interpreted in a weaker sense than actually being able to do something, i.e. as some sort of higher order motor command.

It should perhaps be said here that I am not unaware of the difficulties in characterizing a concept of disposition which would not be vacuous. (See Wetterström 1975 and Allwood-Andersson 1976). I would like to restrict use of dispositions to cases where they can be identified with *know how*, which has manifested itself repeatedly in the behavior of the organism. I would like to refer to other cases as developmental possibilities, and let the laws of physics and biology set the boundaries for what is possible.

I will now turn to the second of the two components I claimed to be characteristically connected with action. What is in need of some clarification here is the term *consciousness*. By consciousness, I mean certain states on a continuous scale of alertness of perception and awareness, which extends from absolutely no awareness at all to very full and clear perceptions. As an idealization, I distinguish three degrees of consciousness:

1. none at all, which I will call *unconsciousness*,
2. very dim awareness, which I will call *low degree of consciousness* and
3. reasonably full and clear awareness, which I will call *consciousness*.

Included among the phenomena of which one has a low degree of consciousness are things like traffic noises, which you notice only when they are no longer present.⁹ Sometimes I will idealize even more and use the dichotomy conscious-unconscious. However, this practice should not cause difficulty if it is taken as a way of labelling behavior which is close to one of the extremes on a continuous scale.

Let us now consider intentions again. Just like most conscious activities, intentions vary in their degree of consciousness. On the one hand, there is action which is preceded by full and clear awareness of intentions and purpose, and on the other hand there are the intentions connected with habitual action which are characterized by a very low degree of consciousness. Such intentions usually only become conscious when they are frustrated in some way. For example, A is trying to light a match but has a hard time, since his thumb is heavily bandaged. He then becomes consciously aware of intentions with regard to many more separable components of his behavior than he is usually aware of. Another example of this phenomenon very commonly occurs with auditive feedback of speech, e.g. upon pronouncing a certain word, A notices that he mispronounced it, so he pronounces it again with a greater degree of intentional awareness.

Thus, for behavior to count as action, we do not require full and clear intentions prior to the performance of the behavior. It is enough that there is a disposition to conscious awareness of direction and purpose which is activated when the performance of an action is frustrated.

⁹ Cf. also Leibniz's classical argument about the miller who only notices the mill when it has stopped operating.

2.4.2 PURPOSE AND MEANING

Let us, as a way of returning to our phenomenological account of the phenomena that underlie actions, summarize the account given so far of the relationship between reasons, intention and action:

Reasons (and grounds) are related to actions by being related to needs, wants and desires, which in their turn are related to acts of will and intentions. A reason is itself either a need, want or desire (motive), or something that can give rise to one of these, or leads to the satisfaction of one of them. Motives normally give rise to acts of will and intentions directed towards satisfaction of the motives. Intentions, finally, initiate behavior.

We have identified a *purpose* with the final type of reason mentioned above, i.e. an expected outcome of an action intended to lead to the satisfaction of a need, want or desire. The purpose or end that an intention directs a certain type of behavior towards, can thus be identified with the expected effects of the behavior that the agent desires. In certain cases, the desired effect can be the behavior itself, i.e. the performance of the behavior. The behavior is an end in itself. As an illustration, one can contemplate the difference between opening the door by pressing the handle downwards, and pressing the handle downwards (by pressing the handle downwards, for the sheer joy of the action itself). See also section 2.5.3.

As we have seen, the reason that Bill drinks water can therefore just as well be that he wants to quench his thirst (the expected and desired effect of drinking water (his purpose)) as that he is thirsty, or that it is hot.

We say behavioral activity has a *point* iff it is intentional and connected with a purpose. (I use the abbreviation *iff* for *if and only if*). A certain type of behavior thus acquires a point by being intentionally directed towards a certain end (by having a purpose). Further, we will say that an individual *means to do* what he intends to do, and that his purpose in doing it is the *meaning* of what he did. We can thus say that behavior acquires meaning by having a purpose, i.e. by being directed towards an end. We will see later that there is a clear relation between our use of mean and meaning for non-communicative action, and the use of the concepts in connection with communicative action.

2.5 IDENTIFICATION OF ACTION

2.5.1 DISAMBIGUATION AND SPECIFICATION

There is however another problem that must be treated before we can continue. A certain type of behavior can be given several types of meaning (can be interpreted as several different types of action) by being tied to different intentions. This can happen in at least two ways:

1. The intentions can be independent of each other. A can say, as an answer to B's question as to why A lifted the axe: 'to chop wood' or 'to murder you'. If we stretch the use that the term *ambiguity* normally has in linguistics, we may say that A's

behavior here is *ambiguous*. We have two completely different actions which have no other relation to each other than that they happen to coincide in a certain type of behavior.¹⁰

2. The intentions are more directly dependent on each other. A locks his hand around a cylindrical piece of wood which is connected to the latch bolt of a door and presses it downwards. He does this to press the handle down, which he does to open the door, which he does to let in fresh air, which he does to air the room, which he does to help B who is ill and has difficulties in breathing, which he does to give B a good impression of himself, which he does to make B bequeath his money to him etc. In other words, one can tie as many purposes and ends to a certain type of behavior as one can imagine effects of it.

This, consequently, also holds for the number of reasons that can be tied to a certain type of behavior. The important thing is what intentions and purposes (expected effects) a certain agent really has. It is the actual intentions of an agent that give a certain type of behavior its *observer independent*, agent dependent meaning. It is by indicating such intentions and purposes that an agent will usually answer questions about what he meant by his behavior. In fact, we can regard all phenomenological explanations of a certain individual's behavior as an observer's educated guess about what a certain agent's own reasons, intentions and purposes were with his behavior.

As in the case of ambiguity, we can describe under 2 one and the same behavior as several different actions, but in distinction to the ambiguity case, there is a clear natural (often causal) tie between the different actions. I will call actions that are tied together in the indicated manner, *specifications* of the behavior. In this way, it is possible to differentiate ambiguous actions from insufficiently specified actions.

In order to say more about specification, we must throw further light on the relation between intention and action. If one wants to realize a certain purpose (effect), one must often realize several other preliminary purposes first. Since one is conscious of the tie between the intended effects and one's behavior, one can intentionally intend to realize a whole series of effects through one's behavior. The later the position of the last intended effect is in this series, the more preceding effects must be intended, at least, initially. When an action becomes habitual, intentional consciousness of the preceding effects diminishes, but usually retains enough strength to enable an agent to notice if something has gone wrong. E.g. if A is trying to let some air in through the window and finds he cannot move his arms, he will have intentions frustrated that usually have no high degree of consciousness.

2.5.2 PLANS AND PARCELS OF INTENTIONS

We can see that most actions are tied to a *parcel of intentions* rather than to just one intention. In this parcel of intentions, we could perhaps separate those intentions that are of a technical coordinating kind from those that more directly have to do with the purpose and

¹⁰ If we had been prepared to stretch linguistic usage even further, the phenomenon just described perhaps most closely resembles the form of ambiguity which is known as *homonymy*.

goal of the action. We will call intentions of the former kind, i.e. those that involve the coordination of several components of behavior to reach a certain effect an *instrumental plan* for the action. (A must both close his hand around the handle and press downward to open the door). For intentions of the latter kind, i.e. being conscious about the effects one expects to achieve with one's behavior, we will use the term *purposive plan*.

A plan or parcel of intentions will thus consist partly of coordinated intentions (which direct different types of behavior towards the same effect) and partly of super- and subordinated intentions, where normally a superordinate intention will lie farther away in a chain of intended effects. The qualification 'normally' is necessary since it seems plausible to suppose that most actions are governed by a *main intention* the 'real' meaning of the action. It will often be situated farther away in a chain of intended actions, but need not be. Suppose A buys ice cream on a hot day. Then, A's main intention could be said to be to buy ice cream, but A could well have subordinate intentions (ulterior purposes) as well, tied to his ice cream buying. One such could be to support the business of the old lady who manages the ice cream stand. This further intended effect would then be farther away in the chain of effects than the effect tied to the main intention. If we stipulated a tie between the main intention and the effect farthest away in the chain of intended effects, this could have the counter-intuitive result of making a subordinate intention the main intention. The other intentions are hierarchically subordinated to the main intention according to their closeness in the chain of effects.

Normally, one only has one main intention when performing a certain type of behavior, but one can also imagine several main intentions. Bill goes skating just as much to watch girls as to get fresh air. This example, besides containing two main intentions, also shows that one subordinate intention (e.g. the intention to go skating) can be subordinate to several internally coordinated superordinate intentions.

2.5.3 SPECIFICATION AND BASIC ACTIONS

What does the intentional hierarchy look like at the other end? Is there any bottom or end? Are there any smallest component of behavior that one can intend to perform? Some authors¹¹ have argued that this is the case. They suggest that there are a kind of basic actions that cannot be further analyzed. For example, it has been suggested that such basic actions are minimal intentional movements with the extremities of the body. But considering the possibility of lifting a finger just a little bit, a little bit more, or quite a lot etc., and the possibilities of increasing the intentional control over all the mechanisms of the body (also such mechanisms as are normally regulated by the autonomous nervous system) through different types of meditation techniques or biofeedback, I must say that I feel rather skeptical about the idea of basic actions.

If one wants a concept of basic action, it seems better to relativize it to the smallest components of behavior that an agent actually intended in performing an action. The concept of *basic action* will thus be related to an agent's actual most subordinate intention, and is therefore in harmony with the agent-centered analysis of action that has been given for the other action-related phenomena considered here. Basic action will thus become a

¹¹ See e.g. von Wright 1971, 128 ff.

concept that is completely relative to the degree of consciousness a certain agent possesses in the performance of an action.

This discussion of the concept of basic action is only meant to be relevant as long as we are considering action, i.e. intention governed behavior. If we left action and phenomenology, of course, there would be other possibilities of characterizing a notion of what I would then prefer to call 'minimal behavioral components'. This could, for example, be done on the basis of an observer's ability to perceive minimal movement, as long as it is borne in mind that the result would then be 'minimal observable behavioral components', rather than 'basic actions'.

This discussion of basic actions also makes it possible to indicate a little more precisely what is meant by saying that an action is an end in itself (see section 2.4.2). Consider the following objection directed to A who claims that he is running for the sake of running, i.e. that his running is an end in itself.

A is not running for the sake of running. This is merely an unspecified way of describing A's activity. If one took the trouble to be more specific, one could say, for example, that A was moving his legs to run. It is not clear that there would be any end to the number of such specifications that could be made, and therefore not clear either that an activity really could have itself as an end.

This objection depends on a confusion of action and behavior. It is true for both action and behavior that there probably is no clear-cut level of minimally intendable activity (see the argument above) or minimally observable activity. But it does not follow from this that any observable activity is an actually intended activity. What is a consciously intended activity (if the intention is not conscious, it is not clear that we are dealing with action any more) can only be decided by the agent himself. This relativization to the agent also applies to purpose. The purpose of an activity is the purpose the agent intends the activity to have. So, if an agent is running for the sake of running, then running is the purpose of his activity, i.e. an end in itself, even if an observer might find it possible to specify his behavior into finer categories.

Let us now try to summarize what has been said about action: an action is a certain type of behavior which is governed by an intention in order to achieve certain desired effects. These effects are the purposes or ends of the action (in special cases, the activity can be an end in itself). With most behavior, there is a main intention (main purpose). This intention identifies the behavior as a certain action. In order to realize the main intention, very often several different effects must come about. The realization of the main intention can then in its turn itself have certain consequences. Both preliminary effects and certain secondary consequences can be tied to an agent's intentions. The behavior of an agent can be specified by exactly as many actions as the agent has tied intentions to separable components of his behavior.

2.6 RATIONALITY

The concept of rationality also plays a certain role in our understanding of the actions of a typical agent. We normally, if there is no reason not to, expect to be able to interpret and understand the behavior of other agents. This is so, I think, since we implicitly assume

them to intend to be rational, which in turn probably is a consequence of assuming ourselves to be rational and assuming the mental make-up of others to be like our own. See chapter 3 on socialization.

Before elaborating on this, however, I want to say something about the concept of *rationality* per se. It is in my view primarily an instrumental concept. It designates a manner of thinking or acting to reach a certain goal. When applied to action, I think, being rational implies, for example, being efficient or economical. Given a certain goal, the most rational way to reach it is the way with the least costs involved. So goals in themselves - at least not the final ones - are not rational. They are a-rational. Only the way to reach them is rational. What then about goals which are commonly said to be rational, e.g. earning money or buying a house? Such goals are of two types:

1. The goal is not really final. Earning money is rational only if there is some other goal that can be reached with the help of money. If this is so, the goal can be rational in virtue of being instrumental.
2. Rational is taken as normal or natural. It is part of our conception of the normal agent that he normally strives for pleasure and tries to avoid what is unpleasant. Therefore, behavior leading to unpleasantness is often looked upon as irrational. Common goals are taken for granted by most people and attempting to reach them is identified with being rational. However, if we become convinced that an individual actually wants to seek unpleasantness, it does not seem counterintuitive to call the behavior he exhibits to this end rational.

What has been said so far, I take to be a characterization of some of the properties of rationality per se. I would now like to add a few comments on the relativization of rationality to agent and observer.

What seems rational to one individual does not necessarily seem rational to another. Individuals differ in their goals, abilities and access to information. So what seems rational to a certain agent at a certain place and point in time might not appear rational to an observer of the agent or even the agent himself at a different point in time. What seems rational to an individual at a certain point in time is relative to his particular set of presuppositions about the world and the information he has accessible at that moment.

In view of the psychological literature on risk-taking (see for example Wiggins 1973), where it turns out that individuals often act in an objectively irrational way and that they are not able to make use of all the information they have stored, it is important to note the way in which we have made our claims about agent rationality dependent on the information of which the agent is consciously aware at a certain point in time. An agent need not be aware of all the information he has stored. His own actions may therefore in retrospect seem irrational even to himself.

However, in general, considerations of such causes of irrational behavior, as the limitations on informational processing ability, that seem to be at stake here, need not worry us too much, since we are not making the claim that agents actually act rationally but only the weaker claim that agents act in a way that seems rational to themselves.¹²

¹² See Wilson 1970.

Seeming rational is one thing and *being rational* another. Something might seem rational to both agent and observer without really being rational.

Lest it be thought that making the claim that agents act in a way that seems rational to them, is so weak as to be tautologous, I will now provide an example that shows the logical possibility of an agent not acting in a way that seems rational to him. A is very thirsty. He wants a beer as quickly as possible. There is a beer in his refrigerator. Two of the possible routes to the refrigerator are to go directly the shortest way to the refrigerator or to walk around the block first and then to the refrigerator. A has no other goals than to get the beer as fast as possible. He does not for example, want to take a walk. He is aware that the beer is in the refrigerator and he is aware of which route is the quicker, yet he walks around the block.

Given these assumptions and that no other unknown factors interfere, I would claim that A here has acted in a way that does not seem rational to him himself. The claim that people act in ways that seem rational to them is thus not totally tautologous.

Thus, what interests us here is what seems rational to the agent or the observer. This is the basis on which they both act and judge each other's actions. Developing this further, I would like to make the following four part descriptive phenomenological claim about how rationality enters into everyday action:

1. Agents act in the way that seems most rational to them (relative to their motives, ability, presuppositions and access to information).
2. Agents assume that other individuals act in this manner too.
3. Agents assume that other individuals (observers) assume that they themselves (the agents) act in this manner.
4. Agents usually assume that their view of what is rational is intersubjectively valid, i.e. shared by others.

Besides this last phenomenological claim, I would also like to make the claim that agents do in fact often agree about what they believe to be rational, since if they live in the same culture, they will often share presuppositions and have similar information available. What seems rational to them will therefore usually serve as a good basis for their interaction and cooperation.

3 CONVENTION

3.1 CONSENSUS AND ARBITRARINESS

In all the cases we have so far discussed, an observer's interpretation of an agent's actions has been based upon assumptions of rationality and natural connections tied to particular features in a particular situation. We shall here briefly consider how conventions affect this picture. (For a fuller treatment of the role of conventions, see chapter 10).

The observer's interpretation of behavior can become less dependent on the actual situation at hand if behavior, by many persons, is both intended and assumed to have a certain meaning in a certain type of situation. We move from meaning in *particular* situations to meaning in a *type* of situation. Thus, relative to a certain type of situation, to shake one's head in Germanic culture means to deny. If a certain type of behavior, relative to a certain type of situation, for a group of individuals, becomes tied to a certain type of meaning, we will say that the meaning has met the first requirement for being conventionally tied to the behavior. Conventionalization thus entails a move from tokens to types in three respects: behavior, situation and meaning. However, we shall require more from a conventional tie than that it is established in the same way by all the members of a social group. The members must also have had the possibility of a choice before the tie was established. There must not be a necessary connection between the phenomena that are tied together. A certain measure of arbitrariness must have obtained, at some point in time, if we are to speak of a conventional tie.

We can, therefore, define a convention in the following way: a set of beliefs or dispositions to beliefs are a *convention* iff

1. they are generally occurring dispositions to beliefs or actual beliefs about the correct way to act in a certain community and
2. they are historically connected with the possibility of choice.

Conventions are thus jointly characterized by 1) consensus and 2) genetic arbitrariness.

If A cries out with pain when B hits him, A's behavior is hardly conventional (at least not as regards the degree of self-control normally required in western culture). One could not say that A here exhibits behavior that is based on a socially determined choice between crying and not crying when one is subjected to pain. As the hedge in brackets above indicates, behavior which in our culture is natural and non-conventional could, of course, in some other culture be arrested and made subject to choice and social reinforcement. The level of pain at which one is allowed to cry could, for instance, be subject to convention. The behavior in question would then still be natural but would also be conventionally regulated.

Further, there is a distinction to be drawn between the actual phenomenon of crying out with pain and the *manner* in which one cries out. The latter is partly conventionalized in our culture, although the former is not. There are conventional means available for the

expression of pain, e.g. *ouch* or *au*, that can, but need not, be used. So, even if the actual occurrence of behavior is natural, its manner of manifestation may be conventional.

Like causality and logical consequence, conventions are phenomena in virtue of which connections and ties obtain. But conventions involve human beings in a clearer way than the other two phenomena. It is groups of individuals who, by, at some point in time, choosing to relate two phenomena, or by choosing to behave or apprehend something in a certain way, in certain situations, make conventions arise and thus give us conventional ties, conventional behavior or conventional beliefs. A convention is constituted when a choice which has been made by a single individual or a group of individuals at some point in time, commonly begins to be made by a whole group of people.

3.2 INSTITUTIONALIZATION AND CONVENTIONAL BELIEFS

Conventions can be *institutionalized* or *non-institutionalized*.¹³ If they are institutionalized, they are often codified in written form or are in some other way generally known through explicit agreements. If they are non-institutionalized, they are simply generally occurring regularities in beliefs, actions or behavior which a certain cultural group, on the basis of a choice at some point in time, have adopted. To drive on the right side of the road is in Sweden today an institutionalized and codified convention, but avoiding the number 13 is an expression of a somewhat less institutionalized convention. Institutionalization could thus be regarded as a scale of consciousness of explicit conventionality in a certain culture, where institutionalized and non-institutionalized are the two extreme points of the scale. The highest degree of institutionalization is achieved by those conventions that are codified, and the lowest by semi-conscious behavioral regularities of arbitrary origin.

It is important to differentiate the inherent character of a connection or tie from the character of someone's beliefs about the connection. A connection can be completely necessary and thus non-arbitrary without my beliefs about the connection necessarily being non-conventional. This is so since there in some cases is room for doubt and one has the choice between believing that the connection obtains and believing that it does not. My belief that a connection is necessary can therefore be *conventional* (if it is shared by a social group) even if the connection actually happens to be necessary. One can have conventional beliefs about necessary connections. Thus, my belief that apples fall to the ground could be conventional even though the law of gravity is not. The degree of conventionality of a belief will depend on the degree of freedom that the members of a society feel that they have as regards holding the belief.¹⁴

3.3 CONTEXTUAL DEPENDENCE

We shall now add a few remarks about conventions and their connection with certain types of situations. Conventions can be more or less specific as to how they regulate behavior,

¹³ The distinction between institutionalized and non-institutionalized conventions is reminiscent of Robert Merton's distinction between manifest and latent functions (see Merton 1968, 114 ff.).

¹⁴ It should be pointed out that there is also another sense of *conventional belief* in which it just means commonly held belief.

actions and beliefs. Some conventions are valid in very many contexts and others are limited to a very small number of contexts. The correct way of eating varies depending on whether one is at a gala dinner or on a camping tour. Conventions are only applied given certain presuppositions about context and situation. This holds also for conventions that tie meaning to behavior. The meaning of behavior never becomes completely situationally independent even if the behavior has a conventionalized meaning. Conventionalization occurs at least relative to a group of individuals, a type of situation and a set of points in time. Conventional meaning is relative, not absolute. A certain type of hand movement is a greeting of departure only relative to situations of departure, and head shaking is denial only relative to situations in which it is possible to deny. As we shall see, the situational dependence of conventional meaning holds also for purely linguistic behavior.

The understanding that agents have of each other's actions is, therefore, in essential ways dependent on shared presuppositions about context. For both conventional and non-conventional meaning, one may say that assumptions about situations can clarify the meaning of an action to an observer in several different ways. Assumptions about situations can disambiguate, specify, disqualify or function so as to make the meaning more precise to an observer. The acting agent needs to make assumptions about the situation to determine what conventions he should follow and in order to predict how his actions will be interpreted by others.

For an observer, a situation is *disambiguating* if it selects one among several possible conventional meanings. A special case of disambiguation occurs when a certain type of behavior loses its conventional meaning and instead acquires a non-conventional natural meaning. A shakes his head because he has a stiff neck, not because he wants to deny anything.

The situation is *specifying* (see section 2.5.1) if it selects one out of a chain of events that are naturally connected with the agent's behavior, as the purpose intended by the agent. *Disqualification* occurs when a situation makes a certain type of behavior meaningless, i.e. cutting down a Xmas tree in May. Finally, the meaning of some behavior is *made more precise* by a situation, if it reduces a vagueness in the interpretation of the behavior, e.g. a situation could be such that it indicated that some agent's tears more plausibly were tears of rage than tears of grief.¹⁵

3.4 CONSTITUTIVE AND REGULATIVE CONVENTIONS

One of the classical distinctions applicable to conventions is the one made by Kant in the *Critique of Pure Reason* (Coplestone 1964, 142), later echoed by Searle 1969, 33 ff. between constitutive and regulative conventions. This distinction is usually applied to rules, but I think it applies with equal force to conventions, and will henceforth discuss it in relation to conventions only, even though I think the points made would apply with equal force to those conventions that could be called rules.

¹⁵ See also chapter 16.3.

Regulative conventions regulate pre-existing behavior, identifiable independently of convention. Rules of etiquette for eating are regulative conventions in this sense, since eating is identifiable and can exist independently of etiquette. *Constitutive* conventions constitute or give identity to a certain type of behavior. The behavior in question would not retain its identity without the convention. The rules of chess are constitutive since, in a sense, chess could not exist without them. One cannot play chess without following the rules, whereas one can eat without following the rules.

This way of presenting the distinction, which I take to be the classical one, is marred in my view by a weakness. One gets the impression that there are two types of conventions - constitutive and regulative. If this were the case, the types should preferably be mutually exclusive. As many critics have noted, e.g. Black 1962, Gumb 1972, they are not. A regulative convention can easily be viewed as a constitutive convention. If we look at 'eating properly' instead of 'eating', we can see that conventions which are regulative when applied to eating can be viewed as constitutive when applied to eating properly. And if we turn to chess again, just as there is a sense in which chess would not exist without its present rules, there is another sense in which it would. In this sense, we could change the rules of chess, and also probably talk about different possible rules for chess. The rules would then not be constitutive but rather regulative.

So it seems that we are not dealing with two different species of conventions, but with two ways of viewing one and the same phenomenon. If one views a convention as regulative, one sees the behavior it is supposed to govern in relation to a larger, more inclusive class which determines the identity of the behavior one is interested in, e.g. 'eating properly' in relation to 'eating'. On the other hand, if one views a convention as constitutive, one sees the behavior as uniquely determined by the convention. Viewing a convention as constitutive thus means viewing a certain type of behavior as uniquely specified and identified by the convention, while viewing a convention as regulative means regarding the behavior it regulates as identifiable in some manner which is independent of the convention.

Thus all conventions can be taken as regulative or constitutive depending on how one chooses to specify the behavior the convention is supposed to apply to. The more difficult it is to select a natural class of behavior for a certain type of behavior independently of the specific convention governing it, the more willing we are to say that the behavior is constituted by that convention. Another way to put it would be to say that the less reason there is for some behavior to exist on independent natural or other conventional grounds, the more willing we are to regard it as constituted by some particular convention. Both eating and driving are the type of behavior which authors like Searle would claim is determined by regulative conventions, but it is not very hard to imagine cases where such conventions function constitutively. Imagine someone in England driving on the right and eating with only his fork. I think a reasonable reaction to this would be to say that he did not know how to drive and eat properly, in the same sense as one would say of somebody who did not move his pieces according to the rules of chess that he did not know how to play chess properly.

If we now turn our attention to conventions of language and communication, it should be clear that it would be a mistake to regard these as either regulative or constitutive without qualification. The perspective that should be chosen will depend on what particular communicative and linguistic behavior we are considering. So, for example, subject-verb

agreement in English could be considered a regulative convention of English syntax, but it could also be viewed as a convention constituting the 'English subject-verb relation'. In the first case, we are viewing the convention as one of the conventions of English syntax, and in the second, we are interested in the unique specific phenomenon of the English subject-verb relation.

3.5 DESCRIPTIVE PRESCRIPTIVE

3.5.1 OBSERVER AND PARTICIPANT

Another problem which has traditionally been widely discussed in connection with conventions is whether they - or rather linguistic formulations of them - are descriptive or prescriptive by nature. Consider the following example of a formulation of a linguistic convention:

(14) The plural of a noun in English is formed by adding an *s* to the nominal stem.

Is (14) a prescriptive or a descriptive statement? In modern theoretical linguistics, it is accepted dogma to say that sentences like (14) are descriptive. They describe the linguistic behavior of native speakers. However, in applied linguistics, i.e. language teaching, this attitude is often abandoned and sentences like (14) are viewed prescriptively, as instructions to the language learner. In view of the relation we will note in chapter 5 between an observer's description of behavior, and the prescriptive principles directed to interacting agents, this double function should not surprise us. If a certain convention is followed in a community, this means that it has a regulative force, i.e. that participating members of the community feel obliged to follow it. On the other hand, if the convention really is followed, it corresponds to regularities in action and behavior and will therefore serve as a good basis for description of actual behavior.

A convention, thus, has both a regulating effect useful for describers, and a regulative force relevant for those who want to behave in accordance with the convention. So, just as with the distinction between regulative and constitutive, we find that we are really dealing with two different aspects of a convention.

3.5.2 PRESCRIPTIVE-DESCRIPTIVE AND REGULATIVE-CONSTITUTIVE

In fact, the similarity with the distinction between regulative and constitutive conventions extends even further, since it is possible to regard it as a special case of the descriptive-prescriptive distinction.

The prescriptive and regulative functions are related in the following sense. We say that a convention regulates the actions of those who follow it, i.e. it prescribes how they should act. We will in the following, when necessary, distinguish between regulation and prescription in the following manner: conventions will be said to regulate actions while the linguistic expressions that render them will be said to have *prescriptive force*, whether they be in declarative or imperative form.

The relationship between the descriptive and the constitutive functions is a little more complicated.

A convention is constitutive if it describes or identifies a specific type of behavior or action. To say that a certain convention is constitutive is to say only that a certain type of conventionally regulated behavior bears a one - one relation to some description. To *constitute* is, thus, to describe conventional behavior under conditions of biuniqueness, and the constitutive aspect of a convention is, thus, the extent to which the behavior it regulates is the unique specification of some description.

3.6 ON THE NATURE OF LINGUISTIC DESCRIPTIONS

Linguistic conventions exemplify all the traits we have talked about. Their regulative effect is relevant to the linguist who is describing a language from the outside, and their regulative force is relevant to the person who wants his speech to conform as closely as possible to that of a particular language community. They are also constitutive in character since the behavior they regulate

1. does not naturally belong to a larger identifying class and
2. is often the unique specification of a description of a linguistic convention.

3.6.1 CORRECT USAGE

Let us now consider in greater detail how these two factors give linguistic data a special character. As was mentioned earlier, according to linguistic dogma, statements of grammatical rules and other linguistic descriptions describe the actual linguistic behavior of native speakers. According to my view, such an answer is only partly correct. As has been pointed out by most linguists, e.g. Chomsky 1965, Saussure 1959, there is no such thing as 'actual linguistic behavior' which can be accepted unscreened as the empirical basis for linguistic theory. Various factors which are usually considered irrelevant to a theory of language, such as slips of the tongue, coughs, speech defects or absent-mindedness are always exhibited concurrently with linguistic behavior. Since this is so, both linguistic analysts and informants, in providing data for linguistic analysis, try to exclude everything they believe to be irrelevant or incorrect. Linguistic analysis is therefore based on what analyst and informant believe to be correct linguistic data, that is, I think, on behavior which has been produced completely in accordance with linguistic convention, where the influence of all extraneous factors has been eliminated.

Thus, linguistic description depends on what could be called a 'convention based prescriptive reconstruction' of what actually occurs. In my view, linguistic descriptions therefore do not, other than indirectly, describe actual linguistic behavior. Rather, they describe the intuitions of language users about convention regulated usage, i.e. so-called correct usage. What a person believes to be correct will then in turn often govern how he behaves, and it is only in this way that linguistic description reflects actual linguistic behavior.

Thus, to return to the problem posed in section 3.5.1 as to whether linguistic descriptions are mainly descriptive or prescriptive in force, the answer I would propose is that they are descriptive but that they, since they describe conventions, of course have prescriptive implications for those who are interested in following the conventions.

3.6.2 VARIATION

The fact that much linguistic or at least grammatical description depends on a rather intangible empirical base, i.e. the reflection of linguistic conventions in the intuitions of speakers about correct usage, has given rise to problems for linguistic theory. One such problem is the problem of what to do when one encounters variation or inconsistency in a speaker's intuitions about correct usage. Is it due to factors that are extraneous to the convention, or is it due to an indeterminateness in the linguistic convention itself? In the first case, some method for systematic elimination of the influence of the extraneous factors must be found. In the second case, some method of dealing with indeterminate conventions must be found. No satisfactory methods of these two types exist in linguistic theory today. For some interesting attempts in the second direction, see Bailey and Shuy 1973. However, even if such methods could be found, the problem of determining whether the variation was of the first or second kind would still remain. Some would adopt the Neogrammarian stand that every exception just shows that the generalization is wrong, while others would adopt the view which has recently been argued by Ross 1974, i.e. that linguistic conventions are much less determinate than has previously been imagined. According to Ross, we find so-called 'squishes' in many places which were previously believed to be rather rigidly regulated by convention.

3.7 ON THE NATURE OF LINGUISTIC CONVENTIONS

Another problem, which has to do with the special nature of the empirical base of linguistic theory, is the problem of how to give the subject matter of grammatical descriptions, i.e. linguistic conventions, a scientific status.

This problem has two aspects: the first has to do with the need for linguists to carve out some special part of reality which they, within the scientific community, could claim as uniquely linguistic, and which would thus justify the need for linguistics as a separate science. The second is concerned with giving the chosen part of reality a scientifically acceptable epistemological and ontological status so that the first claim could be upheld in spite of the problematic nature of linguistic data.

As we have seen, it is linguistic conventions that are the most likely candidates for being the subject matter of at least that part of linguistics with which most linguists classically have been concerned, i.e. grammatical descriptions. It is therefore of some interest to consider some of the attempts to provide linguistic conventions with the ontological and epistemological status necessary to achieve the goals of scientific independence and respectability.

According to one classical account - the Durkheim-Saussure account¹⁶ - linguistic conventions are irreducible social facts,¹⁷ not eliminable in favor of properties of the individuals who follow the conventions. On this interpretation, the intuitions of speakers about correct usage are only a more or less imperfect reflection of a social fact, i.e. the set of linguistic conventions. The job of the linguist is to reconstruct this social fact. In Saussurean terminology, the subject-matter of linguistics is 'langue' a social fact, not 'parole' - the individual speaker's linguistic behavior and intuitions.

Another classical account - the behaviorist-empiricist approach of such authors as Skinner 1957, Bloomfield 1933 and Homans 1961 - was more concerned with the scientific respectability, especially as far as epistemology goes, of linguistic data than the possibility of carving out a separate territory for linguistics. According to this account, linguistic conventions are nothing but uniformities in actual linguistic behavior. The linguist's job is to provide inductive generalizations founded on a 'corpus' of faithfully recorded reports of actual observed usage, where he has to be very careful not to let his own, or any informant's, intuitions about correct usage interfere with the collection of data. This view has been very influential and is partly responsible for what I, perhaps somewhat misleadingly, have referred to as linguistic dogma, in the beginning of section 3.6.1 above.

Since I have misgivings about both of these approaches and their motivations, I would like to outline my own view of linguistic conventions. Linguistic conventions, like all other conventions, are constituted by a certain group of individuals internalizing similar sets of beliefs, attitudes and behavioral dispositions concerning the way they want to realize needs, wants and desires.¹⁸ (*Belief* and *attitude* are here used slightly metaphorically to cover also more or less subconscious presuppositions and beliefs). A convention is thus a set of similar beliefs, attitudes and dispositions about how a given purpose should be accomplished. It should therefore not, as in the empirist-behaviorist account, be identified with actual overt behavior. This manifests the convention only indirectly. Neither should it, as in the Durkheim-Saussure account, be identified with any irreducible abstract social fact in order to safeguard the territorial interests of linguistics.

There is however another advantage to Saussure's approach which should not be overlooked. It very nicely satisfies the needs of Occam's razor. The linguist wants his description to be as neat and as generally valid as possible. It is easier to achieve this goal if one can claim to be describing abstract social facts or idealized competence¹⁹ (see

¹⁶ See Saussure 1959 and Durkheim 1895.

¹⁷ For a discussion of this issue see Allwood 1973.

¹⁸ It is perhaps worth noting that conventionality with regard to linguistic behavior primarily concerns the relation between expression-vehicle and expression-content and not the nature of the expression-vehicle or expression-content itself. These are probably less arbitrary than has been assumed by e.g. the proponents of structuralism or by the proponents of the so-called linguistic relativity hypothesis (the Whorfian hypothesis). There are reasons for accusing proponents of both schools of insufficiently differentiating between, on the one hand the arbitrariness of content and expression, and on the other, the arbitrariness of the relation between them. See Saussure 1959 and Whorf 1956.

¹⁹ See Chomsky 1965. Actually in one interpretation of Chomsky's term *competence*, I believe Chomsky's position to be completely compatible with my own position. The trouble is that there are other equally reasonable interpretations which are not so compatible. Note also that my own use of the term in chapter 5 is different from most of the interpretations Chomsky probably intended the term to have.

Chomsky 1965), which are realities of their own, and from which dissimilarities and idiosyncracies can be banished as irrelevant and accidental.

This does not mean, of course, that I do not want general and simple models of linguistic conventions. It just means that we should not sanction disregard of idiosyncracies by fancy ontology. We should rather attempt to find plausible auxiliary hypotheses of the type we discussed above in section 3.6.2.

This analysis of conventions also supports the picture I gave of grammatical descriptions as only indirectly reflecting linguistic conventions by being based on speakers' intuitions about correct usage.

If a convention is a set of similar beliefs, attitudes and dispositions, with to some extent arbitrary origins, concerning how a given purpose should be accomplished, and part of the task of linguistics is to describe such conventions, then surely one of the best ways to find out about such conventions is to ask oneself or others, how a certain thing should be said correctly. Thus, we see again why descriptions of conventions can be taken both descriptively and prescriptively. Prescriptively, since following linguistic conventions is one of the best ways for anyone wishing to communicate to accomplish his purpose. Descriptively, in two senses; first, since the descriptions describe the convention and second, since people sometimes follow conventions, the description of the convention can function as a sort of indirect prediction of actual linguistic behavior.

4 CONSCIOUSNESS OF THE MEANING OF ACTION

4.1 ROLE-PLAYING

In order to treat communicative action, we must, besides having an idea of how action in general functions, possess an analysis of how an individual becomes conscious of the meaning both of his own actions and of the actions of other individuals. I believe that such consciousness is a necessary precondition for the type of transmission of information that takes place between human beings.

The so-called process of socialization may consist, among other things, in an individual taking the role of another individual in play and other activities.²⁰ To take another individual's role is to experience the external behavior of another individual as similar to one's own external behavior and then, with some degree of awareness, to draw the conclusion that since one's own external behavior normally is tied to certain internal events (intentions, feelings, attitudes, desires, needs and wants) the external behavior of another individual also is.

This conclusion can in its turn perhaps only be motivated by reference to some sort of innate principle of induction operating on a similarly innate assumption of interpersonal constancy or similarity. (If I do X with intention Z on the basis of need W and you exhibit a behavior Y that I think is similar to my own behavior X, then you too probably do Y with intention Z on the basis of need W).

Especially in considering the socialization of young children, there are probably also more advanced innate mechanisms involved which do not require the high degree of consciousness that we are postulating here. Therefore, the role-playing and socialization procedures that we are discussing here should be taken as primarily intended to characterize individuals with a high degree of conscious awareness.²¹

In taking the role of another individual, the individual learns to connect an intention (meaning) with the behavior of another individual. Doing this will, in turn, reinforce the ties the individual has established between his own intentions and behavior. Parallel to learning how to connect the behavior of other individuals with intentions, the individual learns how others probably perceive his own behavior. This can happen if the individual, on the basis of interpersonal similarity assumptions of the above mentioned type, can draw the conclusion that his own external behavior X is experienced by others in a way Z that is

²⁰ This idea has been stressed from different perspectives by such authors as Cooley 1902, Mead 1934 and Piaget 1954.

²¹ In fact, the process I am describing, i.e. understanding others through oneself, is probably more characteristic of adults than children, and the way Mead preferred to put it, i.e. understanding oneself through others, might be more typical of children, although I have difficulties with the extreme variants of Mead's position, for epistemological reasons. Thus, it does not seem to me that one really takes the attitude of the other person, but only that one takes what one assumes to be the attitude of the other person.

similar to his own experience W of the behavior Y exhibited by other individuals that he has experienced as similar to his own behavior X.

The reasons, purposes and intentions that are connected with the behavior of the individual are here an essential ingredient in the experience of his own behavior which the individual with some degree of awareness attributes to other individuals. Briefly, one can say that the individual generalizes his own experience of the tie between the behavior of others and reasons, intentions and purposes, to other individuals, so that he assumes or has a disposition to assume that other individuals experience him as he would have experienced them.

One can say that the individual, through socialization, learns to grasp the meaning of the behavior of others by assuming that the intentions (reasons, purposes) he himself has with a certain behavior are also shared by others who exhibit similar behavior. He learns to experience others as he experiences himself. He further learns how other individuals experience his own behavior by, with some degree of awareness, assuming that the tie he has made between the behavior and intentions of other individuals, in an analogous way is made by other individuals so that they experience him as he would have experienced them. He learns that others experience him as he experiences them.

This last point can, perhaps, be seen as an example of what Piaget (Piaget 1951) has called 'decentration'; projecting oneself on another individual to gain perspective on oneself. It could also, perhaps, be seen as an example of what Mead called 'taking the attitude of the other' (Mead 1934), if one only remembers that the individual is not really, but only through self-projection, taking the attitude of the other.

Through A's feeling that he is essentially like B and by exposing himself to an increasing number of actions from B, and by continuously expanding his own range of action, A can increase both his own understanding of B's actions and his understanding of B's reactions to his own actions. If A has been hit, he has a pretty good idea of what B feels when he hits B, and if A ever has intended to frighten B, he has increased his possibilities of understanding B's intention to frighten A.

It does not seem too daring to suggest that all human action and interaction to a certain extent is regulated by ethical and judicial norms, rules of etiquette and what we would call principles of normal rational action. (See chapter 5). On the basis of human nature (certainly an obscure concept) and socialization into a certain culture, every individual develops a system of *superordinate directions* for what intentions and strategies for action are possible for the individual in question.²² At least to a certain extent, these superordinate directions can be understood through general considerations of rationality and ethics and further by informing oneself about the ethical and judicial norms and the rules of etiquette that have been codified in the cultural pattern that is relevant for a certain individual. For a more complete understanding of these superordinate directions, we must also take into account the system of beliefs or world view of the individual, which is to some extent culturally predictable, and his more idiosyncratically determined beliefs,

²² Mead 1934 suggested that we develop a sort of generalized view of how we think others view us, i.e. the so-called generalized other which becomes part of our personality and functions as a sort of conscience or Freudian super ego.

feelings and attitudes. Further his physiologically determined behavioral possibilities must be considered.

How do ethics, rationality, etiquette and judicial norms enter the process of socialization? From the very beginning, the individual has the possibility of choosing between a number of different ways to realize his intentions. One could say that a sort of rational optimization calculus takes place. The individual, while taking into consideration his possibilities for action, what he believes about those traits in reality that are relevant to his action and his system of attitudes, tries to choose the best way to act. I do not want to suggest that this optimization is always conscious, but I do want to suggest that the factors enumerated are relevant on some, perhaps very low, level of consciousness. In the choice of the best action, the individual will, *inter alia*, manifest his ethics, etiquette, rationality and the judicial norms he has internalized.

Ethics can be said to be relevant to the extent that the deliberations of the individual have concerned the morally right way to act. Rationality can be said to be relevant to the extent that his deliberations have concerned the most economical (in the sense of the least effort) and least contradictory way of acting. Finally, etiquette and judicial norms can be said to be relevant to the extent that his deliberations have concerned actions that are socially regulated through relatively institutionalized conventions.

If we leave pure unmotivated intuition aside, the individual experiences others in terms of himself. He assumes, to the extent that he has some conscious awareness of the deliberations he has carried out in his own choice of action, that similar deliberations have been carried out by other individuals when they exhibit behavior which is similar to his own. Just as his own actions partly are governed by deliberations that are based on rationality, ethics, etiquette, judicial norms, a certain system of beliefs about the world and a certain system of attitudes, he normally assumes that the actions of other individuals are partly determined by the same factors.²³ Essential traits in an individual's experience of others and essential traits in his assumption about how others experience him will therefore be determined by the individual's own conscious or dispositional attitudes to the mentioned factors.

4.2 SOCIALIZATION AND INTERNALIZATION

Let us now consider those factors in the individual's interaction with others that determine how the individual constructs what we have called above the superordinate directions for his actions.

From what has been said so far, one could get the impression that all the individual's beliefs about others arise through some sort of *self-projection* on others. This is, of course, incorrect since he can also learn things about other individuals through mere observation of their external behavior. It is only as far as his beliefs concern the conscious and intentional activity of other individuals that he has to rely on self-projection.

²³ This is why the method of participant observation is so important in social anthropology and why Weber 1951, 536 ff., stresses the importance of 'Verstehen' in any social science. In fact, all of the common sense phenomenology in this thesis is based on assumptions of this type.

In fact, when language, with conventional meanings which are, at least to some extent, independent of the actual intentions of agents, enters the picture, his reliance on self-projection can be diminished also in this respect. The individual's beliefs about others and his beliefs about what others believe of him can now be explicitly corrected through linguistic means. Further, he can now get explicit advice on what the most correct, best or effective way to act might be. He no longer has to fall back on himself only.

Others can tell him how he ought to act and they can tell him why (in the sense of what intentions and superordinate directions have determined their actions) they act the way they do.

His beliefs about the actions of others can thus change through his sharing their views of their own actions. In a parallel fashion, his views of how others view him will change.

To the extent that the individual not only becomes conscious of and understands what intentions and superordinate directions are commonly thought to be manifested by different actions but also becomes convinced of and accepts these as possible personal intentions and personal superordinate directions, we can say that he has *internalized* the norms of his culture and thereby been *socialized* into the culture. The process of socialization therefore has at least two aspects:

1. the development of some degree of conscious awareness about the meaning of different actions and
2. the individual's internalization of these meanings by making the reasons, intentions, purposes and superordinate directions that are culturally prescribed for certain actions his own, and then genuinely exhibiting these in his behavior.

These two aspects of the process of socialization are analytically rather than factually separated. If one wanted to venture a guess about their factual relationship, the above reasoning makes it plausible that internalization and acceptance, insofar as they are not innately determined, are more or less concurrent with some degree of conscious awareness of how others experience different types of behavior (social consciousness). (See chapter 13).

The actions and personality of an individual are thus determined by an interaction between biologically given traits and internalized socio-culturally given traits. The self-consciousness of an individual is developed through the individual becoming socially conscious (projecting himself with some degree of conscious awareness on others) and thereby enabling himself both to grasp the meaning of the actions of others and to grasp how others probably view his own actions (self-consciousness).

Both of these characteristics of the socialization process are important to an understanding of how communication can arise and function. The individual acquires the ability to interpret the behavior of other individuals, and he is conscious that other individuals can interpret his own behavior (by assuming that their interpretation of his behavior is similar to his interpretation of their behavior).

5 NORMAL RATIONAL ACTION AND COOPERATION

In the following chapter, I will attempt to summarize some of the observations made on how agents normally come to experience both their own behavior and the behavior of others through socialization. I will concentrate on non-conventional aspects of beliefs and behavior and deal with aspects that I believe would characterize the assumptions that most human beings, irrespective of cultural differences, make about themselves and others. First, I will consider the traits of a typical agent in isolation (section 5.1), and then I will consider him in interaction and cooperation with other agents (sections 5.2 and 5.3).

5.1 THE TYPICAL AGENT

5.1.1 SOME OF THE TRAITS OF A TYPICAL AGENT

In what follows, I will first attempt to characterize, in more detail than in chapters 2 and 4, some of the traits that, phenomenologically speaking, seem to be part of our understanding of a typical socialized agent.

Besides rationality and pleasure seeking, free will²⁴ is an important trait in our conception of a typical agent. This means that we conceive of agents as in some sense self-governing and exhibiting voluntary actions. If we combine this trait with the other two, we get the following picture. The typical agent exhibits actions which are intended by him to correspond to his wishes, desires, wants, attitudes and beliefs. He typically desires pleasure and tries to avoid what is unpleasant. 'Pleasant' is here intended to be sufficiently abstract to allow an individual to pursue short-term goals which are unpleasant in order to gain long-term advantages which are pleasant. Furthermore, his wishes, wants and desires are connected with external circumstances in ways which are considered natural.

Let us see what some of the implications of this are for a typical agent A, whom we find digging. Normally, we assume that A wants to dig if he is digging, and we have to conjure up a picture of A being forced to dig by external forces, if we are to believe that A is digging in spite of not wanting to dig. In the same way, we need an argument about long-term advantages ensuing from digging, if we are to believe that A wants to dig in spite of not liking to dig; one wants to do (*wants to do* as distinct from *does*) what one likes to do.

Another trait in our conception of a typical agent which helps to reinforce our belief that a person's actions usually correspond to genuine motives, attitudes and beliefs, is our belief in the economy of energy or in what we could call the principle of maximal effect through least possible effort. If there is no reason to believe otherwise, we assume that a person spends his energy and the means he has available to maximize correspondence between what he believes and wants, and what he does. So A in our example above can be assumed

²⁴ I do not intend any metaphysical notion of 'free will' but merely the experience of choice and being able to act as one chooses. This is a purely phenomenological notion of 'free will' which is not at all incompatible with more fundamental determinism.

to be digging in the fashion he thinks most effective and not randomly here and there with any old object that he might have encountered. If he behaved in the latter way, I think the common reaction to his behavior would be to say that it was irrational and incomprehensible, which is to say that his behavior would seem irrational to us.

If we for a moment imagine Malinowski's Trobrianders basking away in the sun, it might be thought that, by introducing 'economy of energy' as one of the traits of the typical agent, I am biasing my account hopelessly in favour of western civilization; that I am just giving vent to prejudices based on the Protestant work ethic. This type of objection I think arises only if one either does not take the instrumental character of rationality seriously, or if one does not remind oneself of the great plasticity and abstractness of goals such as pleasure (See Kardiner 1945 and Wilson 1970).

If we found a culture of random garden diggers, this would not automatically mean that we had found a group of irrational incomprehensible nuts. Before we made such a claim, we should ascertain what their goals were and what their beliefs regarding the nature of gardens and digging were. E.g. if their primary goal was to get some fresh air and physical exercise by digging, their behavior would be quite rational and comprehensible to us too.

Finally, our conception of a typical agent contains a supposition of competence. Actions seem rational only if they are performed when a set of preconditions, under which they are possible, are met. We presume that A, in our example above, believes it to be possible to dig where he is digging, i.e. one does not begin digging on a smooth rock surface. A rational agent only does something when he thinks it is possible to do it.

So we see that the conception of a typical agent contains a number of assumptions about the ties that are supposed to obtain between his actions, reasons, motives, attitudes and beliefs. These ties are not necessary. Agents are not always normal and rational. One can act in a certain way without a corresponding act of will. Action is not always voluntary. But one can never act in a certain way without intending to act that way, since the intention is what makes the behavior that type of action. Unintentional behavior is not action. But one can want (in the sense of possessing an act of will) to act without actually doing so. Similarly, one can have wants, needs or desires without the presence of some external circumstances which have given rise to the want, need or desire, and without wanting (in the sense of an act of will) to behave in an appropriate manner. One can also want (in the same sense) something without there being a motive (desire, need, want) connected with that same thing. Further, one sometimes does what is unpleasant, one frequently uses more energy than is necessary, and sometimes one even tries to do what one suspects is impossible.

The phenomena discussed above are therefore neither necessary nor sufficient conditions for each other. Rather they are some sort of normality assumptions concerning the way an individual operates when there are no disturbing factors present. In fact, what we have done could be said to provide a characterization of the typical agent as an 'ideal type' in Max Weber's sense.²⁵

²⁵ See Runciman 1972, 33-37, and Weber, 1951, 130 ff.

5.1.2 PRINCIPLES, NORMS AND ASSUMPTIONS OF NORMAL RATIONAL AGENTHOOD

We will now try to summarize the traits of a typical agent in a set of principles. The principles bear some likeness to the maxims proposed by Grice 1975 and the postulates proposed by Allwood 1972.

The principles should be regarded as descriptive phenomenological statements of expectations we normally have about ourselves and other individuals. They can be seen as statements formulated by an observer who is trying to summarize his phenomenological observations on the expectations human beings normally have about both their own behavior and the behavior of other human beings.

All the principles will be two-pronged. They can either be seen as statements of norms that an individual agent tries to follow in his own behavior, or they can be seen as statements of assumptions that typical socialized agents make about the behavior of other individuals. The two functions of the principles will tend to reinforce each other through self-projection, i.e. A must act in manner Y for reason X, since that is why I would have acted in manner Y. Below, we will follow each principle with a statement of the norm, and the assumption connected with the principle.

The assumptions will be given in simple form without any reflexive projection. From this, one can easily formally generate assumptions of indefinite reflexive complexity. As we have seen, this reflexive projection is an essential element of socialization. See section 4.2. E.g. if A assumes X of B, then the reflexive projection of this assumption will be that A assumes B to assume X of A and the reflexive projection of his latter assumption will be that A assumes B to assume that A assumes B to assume X of A etc.. At least, the assumption itself, and the first projection, are essential elements in an individual's social awareness and are also, I believe, basic to all communication. See section 9.4.

Each assumption is followed by a 'ceteris paribus' clause, which says that the assumption should only be made in normal circumstances and not if the individual possesses information which would contradict the assumption. These 'ceteris paribus' clauses have to be amended in a fairly straightforward way for assumptions which are reflexively projected.

5.1.3 SEVEN PRINCIPLES OF NORMAL RATIONAL AGENTHOOD

1. *The principle of normal rational agenthood*

'Typical human beings are normal rational agents'

Norm: 'Be a normal rational agent'

Assumption: 'Assume that other human beings are normal rational agents, unless you have clear indication that they are not'.

This principle is the basis for all the other principles we are going to formulate. It tells us that a typical individual is a normal rational agent. The following principles can be seen as

explications of some of the aspects of agenthood, normality and rationality. First, we will explicate the notion of *agenthood* by means of two principles of voluntary, intentional, purposeful action.

2. *The principle of intentional and purposeful behavior*

'The intentionally controllable behavior of an agent is intentional and purposeful'.

Norm: 'Try to direct your intentionally controllable behavior by intention and purpose'.

Assumption: 'Assume the intentionally controllable behavior of other agents to be intentional and purposeful, unless you have clear indication that it is not'.

Since action is behavior which is intentional (section 2.1) and purposeful, we could restate this principle, norm and assumption in the following way:

Principle: 'An agent acts'

Norm: 'Act'

Assumption: 'Assume that other agents act, unless you have clear indication that they do not'.

Thus, this principle postulates that behavior should have a point, in the sense of section 2.4.2. The point can for an agent be identified with his main intentions and for an observing agent with the way in which some particular behavior 'makes sense'. We will therefore sometimes refer to the principle as the *postulate of point*. But to have a point is to have an intentional purpose which in turn is to have a reason for one's action - in one sense of reason, see section 2.2. Thus, this principle also guarantees that individuals have reasons in the sense of purposes for their actions. Finally, we have restricted the principle to normally intentionally controllable behavior in order to get rid of an interpretation of the principle that would make normal agents go around trying to get rid of their reflexive behavior by, for example, bio-feedback.

3. *The principle of voluntary action*

'The actions of an agent are not performed against his own will'.

Norm: 'Don't act against your own will'

Assumption: 'Assume the actions of other agents not to be against their own will, unless you have clear indication that they are not'.

This principle, norm and assumption are given in negative form since there is a trivial sense in which any performed action is voluntary. We intend a stronger sense of voluntary, in which an action is voluntary iff an agent does not believe that he would be in danger by not performing the action. Imagine the forced labor at gunpoint in a concentration camp. This would be involuntary action in the stronger sense of voluntary. Since danger can be

more or less serious, the degree of voluntariness of an action will vary. Since I think a negative formulation of the principle brings out the stronger sense of voluntary more clearly, I have chosen the negative formulation rather than the positive *Actions are voluntary* etc..

We will now in two principles explicate certain common 'normality' assumptions about the motives and type of purposes that can be attributed to a normal agent. Thus, we are using *normal* in a somewhat special sense. We might also have used *natural*, but the choice of this term would have certain undesirable consequences (see section 5.1.4).

4. *The principle of motivated action*

'The actions of a normal agent are motivated'.

Norm: 'Do not act without motives'

Assumption: 'Assume that other agents have motives for their actions, unless you have clear indication that they do not'.

Note that *motivated* here is a cover term for all motives in the sense defined above, e.g. a need, desire, wish or want, excluding any external circumstances giving rise to the motives. We will say that an action is *genuine* iff it corresponds to the motives it should be connected with given certain natural assumptions or conventions.

Another part of our conception of a normal agent concerns the nature of his purposes. On the whole, we assume that normal agents in isolation naturally seek pleasure, at least as a long-term goal,²⁶ and try to avoid pain. We can thus specify the character of the purposes that normal agents try to achieve, according to the principle of intentional and purposeful behavior, in the following principle.

5. *The principle of pleasure and pain*

'Normal agents do not act so as to decrease their pleasure or increase their pain'

Norm: 'Do not act so as to decrease your pleasure or increase your pain'

Assumption: 'Assume that other agents are not intending to decrease their pleasure or increase their pain by their actions, unless you have clear indication that they do'.

The reason for putting this principle in such a weak negative form, rather than a stronger formulation, i.e. *agents strive to increase their pleasure and decrease their pain*, is that I am rather uncertain about the exact status of this normality principle. I therefore prefer to state it weakly. However, it seems obvious to me that it does figure in some form, both in our conception of our own action and our conception of the action of others.

²⁶ Thus, striving for unpleasant short-term goals in order to reach pleasant long-term goals is perfectly compatible with the principle.

Next, we will turn to an explication of the rational component involved in *normal rational agenthood*. We will do this in terms of the two principles of adequacy and competence.

6. *The principle of adequacy*

'The actions of a rational agent are selected so as to provide the most adequate and efficient way of achieving the purpose for which they are intended.'

Norm: 'Try to act as adequately and efficiently as possible to achieve your intended purpose.'

Assumption: 'Assume that other agents in their actions intend to achieve their purposes as adequately and efficiently as possible, unless you have clear indication that they do not'

This principle is supposed to capture the 'economy of energy' idea, and the idea that any external means employed to achieve a purpose should be maximally efficient, given the resources at hand.

7. *The principle of competence*²⁷

'The actions of a rational agent are performed only if he thinks it is possible to achieve their intended purpose'.

Norm: 'Try to act only when you believe that it is possible to achieve the purpose of your actions'.

Assumption: 'Assume that other agents act only when they believe that it is possible to achieve the purpose of their actions, unless you have clear indication that they do not'.

The locution *possible to achieve intended purposes* should be taken in the sense indicated earlier, i.e. the agent's belief that the preconditions for performing a certain action are met - e.g. to swim, one needs water etc., and that the action has a reasonable chance of being successful.

Since these principles are supposed to hold for all action, they will also hold for communication. We will later show how, and also how their double function takes on increased significance when we see how the norms are applicable to the agent as a sender or speaker, and how the assumptions are relevant (by reflexive projection) both to the agent as a sender or speaker and as a receiver or listener.

²⁷ As remarked in note 19, the term *competence* as used here has no essential relation to the sense given the term in Chomsky 1965. The main connection seems to be that both terms stand for a certain type of ability.

5.1.4 DEGREES OF RATIONALITY AND NORMALITY

It should further be pointed out that these principles do not have an 'all or none' character. Agents can behave in accordance with some of the norms and assumptions without behaving in accordance with all of them. We can therefore speak of an agent as partly normal or partly rational.

In fact, we could distinguish between rational, irrational and a-rational in the following manner: to be either rational or irrational, an agent has to act in accordance with the principles of intentional and purposeful behavior. If his behavior is not intentional and purposeful, it is *a-rational*. Unintentional reflexes are a-rational in this sense.

Thus, both rationality and irrationality presuppose that the behavior can be counted as action, i.e. they presuppose intention and purpose. They are instrumental concepts. An action is *irrational* iff it is neither adequate nor competent. (In the sense of principles 6 and 7). It is *rational* iff it is both adequate and competent. It is *partly rational* iff it is adequate or competent. In a similar way, we can define the concepts of typical, a-typical and partly, typical behavior. Behavior is *a-typical* if it does not have a point. Thus, all behavior that is a-rational is also *a-typical*. An action is *typical* iff it is in accordance with all the principles. An action is *partly typical* iff it is in accordance with at least one of the five last principles.

Besides agenthood, rationality and normality have been here included in typicality. We can also consider principles 4 and 5 in isolation and in a similar way define some more specific concepts related to these principles. Thus an action is *abnormal* iff it is in accordance with neither principle 4 or 5. It is *normal* iff it is in accordance with both of these principles. It is *partly normal* iff it is in accordance with either 4 or 5. Finally, if some behavior is non-intentional, i.e. not in accordance with principle 2, it is *non-normal*. Intentionality is thus a precondition of normality too. We can now see why *natural* would be slightly inconvenient as a term for what we have called *normal*. At least for me, it is completely counter-intuitive to say that non-intentional behavior is *non-natural*, while *non-normal* sounds slightly better.

5.2 THE SOCIALIZED AGENT AND COOPERATION

In section 5.1, we tried to capture some of the properties of a normal rational agent in the seven principles of normal rational agenthood. The principles are by themselves insufficient to characterize an individual who is engaged in some sort of cooperative social activity. They characterize an isolated Robinson Crusoe-type of individual just as much as an individual who is an interacting and cooperating member of a social group. We will therefore in this chapter consider some of the ways in which cooperation introduces factors not necessarily present in individual normal rational action.

5.2.1 NORMS AND CONVENTIONS

In a group, the individual's behavior is regulated by social norms in addition to rationality and natural impulses. The term *norm* will here be used as a cover term for any of the

superordinate directions (see section 4.1) which an individual has internalized as dispositions towards beliefs or actual beliefs about the correct way to act. Some norms are idiosyncratic and particular to one individual. Others are shared by a community. Among the norms that are shared by a community, conventions form a proper subset, i.e. they are those commonly shared norms that are historically connected with the possibility of an arbitrary choice. Other commonly shared norms are not conventions. They are the result of natural impulses or rational deliberation, i.e. they are beliefs or dispositions towards beliefs about how one should behave that are naturally 'caused' in some sense, or which are held for rational reasons (in the non-causal sense of reason - see section 2.2).

Between conventions and other norms, there is a zone of vagueness. The most clear cases of conventions are those that are espoused as a result of direct conscious choice at some point in time. The most clear cases of norms that are not conventions are those that are adopted without any possibility of conscious choice at any point in time. Many norms, of course, fall somewhere in between these two extremes.

There is nothing that prevents a certain type of action from having both conventional arbitrary aspects and rational-natural aspects at the same time. (See section 3.1). E.g. B looks very sad. A therefore feels a natural impulse to console him and tries verbally to express sympathy for him. This, I think, would be an action that is regulated both by a naturally caused norm, i.e. a disposition to console those who are sad, and by a conventional norm, i.e. consolation should be given verbally and not by kissing or cuddling, at least when the heroes of the story are grown-up men in western culture.

Social conventions exist to regulate and coordinate the actions and interactions of not just a particular individual, but of a group of individuals. The 'raison d'être' of a convention is that it is beneficial for the members of a group to establish coordination patterns in their interaction. They need some kind of set coordination equilibria which, by introducing predicability, will make social interaction more manageable. Conventions create such coordination equilibria if they come to be espoused and followed by a sufficient number of people.²⁸

However, a convention which furthers mutual interest does not necessarily further the interests of a particular individual in a particular situation. A particular individual's interests may not always be compatible with the coordination equilibrium of the group. That which is beneficial and rational for a group may not be beneficial and rational for a particular individual.

The potential conflict between group rationality and individual rationality leads to a difficulty with regard to empirical studies of rational interaction. An individual's actions will very seldom exhibit only one of the two types. Characteristically, they will be a mixture of both. However, the fact that two phenomena co-occur empirically is no reason for not recognizing the conceptual analytical value of a distinction between them.

Further, the fact that there can be a conflict between what is rational for a group and what is rational for an individual should not make us forget that very often there is not a conflict,

²⁸ For a discussion of the relation between coordination equilibria and conventions, see Lewis 1969.

and that individuals therefore mostly conform to social conventions both in their behavior and attitudes.

Individuals conform to social norms since they are beliefs or dispositions to believe, which, at least for some of the members of a community, act as guidelines for their behavior. Note that we are referring to the norms themselves - sets of beliefs or dispositions to believe - and not to linguistic formulations of the norms. The fact that something is a paragraph in a lawbook does not always mean that there is an actual norm corresponding to it. Consider e.g. so-called dead paragraphs.

We call the strength with which people want to follow a norm which they espouse the *obligating force* of the norm. This force can vary in strength in two ways:

1. an individual agent may want to follow different norms with varying degrees of strength.
2. the number of individuals who equally strongly want to follow a norm may vary from norm to norm.

The obligating force of many norms is strengthened by the fact that societies usually tie sanctions to their conventions and norms. There is a price to be paid if one does not follow a norm, and sometimes a prize to be won if one does. The price varies in strength from mild social reproach to capital punishment.

5.2.2 COOPERATION

We now move from normal, rational norm regulated interaction in general to a particular species of such interaction, namely *cooperation*. Perhaps one way of characterizing cooperation would be to say that it constitutes one extreme on a scale of human interaction which extends to pure conflict on the other extreme. In so-called game theory, only games of conflict are usually studied (See Anderson A.R. and Moore O.K. 1965, for an exception see Schelling 1960). However, I believe that for an understanding of communication, a consideration of cooperation would be more interesting. Below, I hope to indicate some of the ways in which communication is a fundamentally cooperative venture. This does not mean that I think that communication could not be used to pursue a conflict with someone. Of course, it can. But it does mean that I think such conflicts presuppose cooperation on a deeper level. If the conflict becomes so serious as to make any cooperation whatsoever impossible, communication will eventually also break down.

Roughly, we could characterize cooperation as follows: *cooperation* is a type of interaction involving two or more normal rational agents who are 1. considering each other, and 2. trying to achieve one or more common purposes. The purpose or purposes can be more or less specific and can change during the course of the cooperation. But it is not enough that a common purpose be achieved. We do not have true cooperation if actions individually performed by two agents without any interaction between them, achieve a purpose intended by both. There has to be mutual consideration as well.

5.2.3 MUTUAL CONSIDERATION

Mutual consideration is a somewhat vague notion which in its *weakest sense* only implies trying to predict the various actions and reactions of another individual. We will call this type of consideration *cognitive consideration*. But consideration also has a much stronger sense in which it implies treating another individual ethically. This we will call *ethical consideration*.

In section 5.1.3, we showed how cognitive consideration involves principles of normal rational agenthood. But also part of what we mean by ethical consideration can be related to these principles. They form the basis for a set of *ethical norms* of the type of the 'Golden Rule', determining how one should treat other individuals. We call these norms ethical, since their effects seem to concern the well-being of other individuals. The norms arise through natural impulses and a form of self-projection of the following kind. I want my actions to be in accordance with the principles of normal rational action, and I don't want other individuals to prevent them from being so. Through self-projection, I assume that other individuals have similar inclinations, and that they are aware of my inclinations. On the basis of these projections, I then develop the general ethical norm: 'I should treat others as I want to be treated by them, and I should expect them to treat me as I would treat them'. As far as our principles go, this means that I should not only act according to the norms, and assume others to do so too, but that I should not do anything to prevent them from acting in accordance with the norms.²⁹

With regards to our principles, this means that:

1. I should not prevent an individual from being an agent, i.e. prevent him from acting intentionally and purposefully according to his own will, and I expect him not to prevent me from being an agent.
2. I should not prevent an individual from acting normally, i.e. from having his own motives, or from behaving so as not to increase his own pain or decrease his own pleasure, and I expect him not to prevent me from being normal in this sense.
3. I should not prevent an individual from being rational, i.e. from selecting the most adequate actions in his circumstances, or from selecting the actions that are most in accordance with his competent judgement, and I expect him not to prevent me from being rational.

Finally, I want to stress again that the purpose of these principles and ethical norms is not to claim in some objective sense that individuals actually are rational, normal agents, or that the ethical norms explicate what is really right or wrong, but to explicate certain experiences which we normally connect with our own behavior and with the behavior of other individuals. Ontogenetically, the different types of mutual consideration arise out of the kind of self-projection we have described as involved in role-playing (see chapter 4 and section 5.1.2 above). It is a natural part of taking another person's role and developing a

²⁹ To be on the safe side, I am here modifying the positive Christian version of the 'Golden Rule', i.e. 'Do to others what you want done to yourself', in favor of the more negative Confucian version 'Don't do to others what you don't want done to yourself'.

consciousness of how the meaning and effects of your actions are interpreted and experienced, respectively, by other people.

There does not seem to be any definite formal upper limit to the complexity of mutual consideration, except for the limits to the storage and processing capacity of the human mind (see e.g. Miller 1956 and Wiggins 1973). In fact, mutual consideration seems to be a recursive mechanism of the type well known from the study of syntactic structure in natural language. This can be intuitively seen if we give it a compressed linguistic form, i.e. I expect you to expect me to expect you to expect me to expect...

In being considerate, A could, for example, consider both B's beliefs and attitudes and B's expected reactions to his own actions before he acts. He could consider what actions B expects from him and what actions B expects him to expect from B. If B is also considerate, he will go through some part of a corresponding expectation and consideration calculus with regard to A.

Nor is a specific lower level of complexity required from the agent's performing such a calculus for it to count as mutual consideration. It is enough that they both reciprocally somehow take the actions of the other into account.

5.2.4 A DEFINITION OF IDEAL COOPERATION

The connection between interaction, mutual consideration and a common purpose can be summarized in the following definition of cooperation:

A definition of ideal cooperation

'A number of interacting normal rational agents are said to be engaged in *ideal cooperation* to the extent that:

1. they are voluntarily striving to achieve the same purposes,
2. they are ethically and cognitively considering each other in trying to achieve these purposes.
3. they trust each other to act according to 1 and 2 unless they give each other explicit notice that they are not'.

We will now explicate ideal cooperation; by deriving, firstly, a norm applicable to cooperating partners in an active initiating capacity, and secondly, a norm concerning assumptions which they should make as more passive, trusting responding agents. The parallel between these two principles and the norms and assumptions tied to the principles of normal rational action should be obvious.

A. *Active ideal cooperation:*

'While ethically and cognitively considering others, act so as to achieve the common purpose'.

B. *Trusting ideal cooperation:*

'Assume that other individuals are taking you into ethical and cognitive consideration in so far as they are voluntarily cooperating with you to achieve a common purpose'.

5.3 CONVENTIONS, COOPERATION AND THE PRINCIPLES OF NORMAL, RATIONAL ACTION.

The principles of cooperation are intended to capture aspects of an individual's social competence which play an important role in communication. We will therefore say a few words about the consequences of transforming an individualistic normal rational agent into a norm-abiding cooperative normal rational agent.

5.3.1 CONVENTION AND COOPERATION

Let us first consider how cooperation is affected by conventions. As has been remarked in section 5.2.1, conventions can be regarded as expressions of coordination equilibria in a society. Conventions are, therefore, from their inception, a cooperative outgrowth of some form of interaction. Therefore, the more individuals consider their participation in society as an ideally cooperative venture, the more they will appreciate conventions as a means to achieve common purposes under mutual consideration.

We could perhaps say that the more people there are that take part in cooperation, the greater the probability that conventions will appear to reduce the uncertainties involved in cooperation. Conventions thus strengthen cooperation but, as we shall see, never exhaust it. Cooperating agents can always disqualify an established set of conventions by increasing the sophistication of their mutual consideration. In particular, this is true when such individuals make up a relatively well defined subgroup within the group for which the conventions hold.

However, if we, for the moment, ignore this possibility, we may explicitly state the connection between conventions and the norms for active ideal cooperation and trusting ideal cooperation, in order to explicate a notion of *ideal conventional cooperation*. As in section 5.2.4, we shall do this by formulation of prescriptions directed to two idealized cooperators, one active and considerate and one trusting and responding.

A. *Active ideal conventional cooperation:*

'Follow all relevant conventions unless you, while considering others, give them explicit notice that you are not following the conventions'.

B. *Trusting ideal conventional cooperation:*

'Assume that other agents, in so far as they are cooperating, are following the conventions, unless you have clear indication that they are not'.

Car driving perhaps qualifies as an example which comes near the ideal of conventional cooperation. However, in actual cooperation, there will always be individuals who are

neither cooperating nor following conventions. Ideal principles can only very indirectly serve as a basis for prediction of actual behavior.

The norm for active ideal conventional cooperation must be modified, since with legally codified conventions, it is usually not possible to break them even if you notify other cooperating agents. The obligating force of such conventions can usually only be lowered by removal of sanctions or change of legislation.

However, conventions that are not legally codified can sometimes be broken through explicit notification. Consider the following example: In linguistic literature, it is common to distinguish between the use and mention of words by underscoring or scare quotes. A believes that it is a mistake to make this distinction in writing, since it is not made in spoken language. He believes the distinction to be an unnecessary artificial construct. He therefore notifies his readers whenever he writes on linguistically relevant topics that he is not making the distinction.

I think it is fair to say that A here would be meeting the requirements of ideal conventional cooperation.

The prescriptions of ideal conventional cooperation will be relevant for all cooperation that is regulated by convention. Their significance becomes especially apparent when one considers actions that are highly regulated by convention, as in linguistic communication.

5.3.2 IDEAL COOPERATION

Let us now in more detail turn to some of the consequences of the principles of individual normal rational action for ideal cooperation.

1. *Normal rational agenthood and ideal cooperation*

We are presupposing that the ideal cooperators are normal rational, ethically and cognitively considerate agents.

2. *Purpose, intention and ideal cooperation*

Since cooperation by definition is to strive for a common purpose under mutual consideration, the requirements of the principle of intentional and purposeful behavior are met by those agents who act according to the norms of cooperation (section 5.2.4). Cooperation is thus a type of action and the norms for cooperation themselves explicate the role of the principle of intentional and purposeful behavior in terms of a common purpose, consideration and trust.

3. *Voluntary action and ideal cooperation*

The requirement that cooperation should be voluntary also follows from the definition of cooperation in section 5.2.4. And its implications for consideration, i.e. 'Don't try to force the actions of other agents', and trust, i.e. 'Expect to be able to act voluntarily - to be treated as an agent' are also relatively straightforward.

4. *Motivated action and ideal cooperation*

Since an ideal cooperating agent is just a special case of a typical agent, the application of the principle of motivated action to cooperation is also pretty obvious.

Among the conventions that help to guarantee motivation, one type in particular will be of interest for communication. This is the type that requires that certain psychological preconditions be met before the performance of an action. (See section 7.2.3).

5. *Pleasure and pain and ideal cooperation*

Agents normally do not cooperate in order to decrease their common pleasure or to increase their common pain. The purpose is usually the opposite, to increase common pleasure and decrease common pain. However, what is pleasant or painful to a group might not be so to an individual. The individual's own principle of pleasure and pain can be in conflict with that of a group. Likewise, his consideration of the pain and pleasure of another single individual can sometimes be conflict with the interests of the group.

6. *Adequacy and ideal cooperation*

The postulate of adequacy requires that ideal cooperation be efficient. What is efficient individual action is not necessarily efficient ideal cooperation. Adequate ideal cooperation entails that a common purpose is achieved in such a way that the sum of the energy spent under mutual consideration by the agents involved should be as small as possible. This can, for an individual agent, mean that he will be forced to spend more energy on a task than he would have if he had only considered himself. What is efficient for the group can often be irrelevant or conflict with what is most efficient for the individual and vice versa. In actual interaction, group efficiency is nearly always diminished through conflict with individual efficiency. The outcome of a potential conflict between individual efficiency and group efficiency will be decided by such factors as how strongly the individual agent adheres to the principles of ideal cooperation.

The choice of means is also affected by cooperation. New means become available, and some of the means the individual would have used on his own are no longer possible to use.

Since efficiency in group interaction is one of the reasons why conventions arise in the first place, they will tend both to reinforce, by obligation, and to be reinforced (to the extent that they are not exhausted, see section 5.3.1) by efficient cooperation. As we have seen, this does not always hold true of the relationship between '*individual*' efficient action and conventions.

We will explicate the application of the principle of adequacy to cooperation, like in section 5.1.3, as a principle with directives.

The principle of adequate ideal cooperation

'The actions of an ideal cooperator are chosen so as to provide the most adequate and efficient way of achieving the common purpose for which they are intended, while considering other cooperators'.

A. *Active adequate, ideal cooperation:*

'While ethically and cognitively considering other cooperating agents, try to act as adequately and efficiently as possible to achieve the common purpose'.

B. *Trusting adequate ideal cooperation:*

'Assume that other cooperating agents are trying to achieve the common purpose as adequately and efficiently as possible, whilst taking you into ethical and cognitive consideration, unless you have clear indication that they are not' .

7. *Competence and ideal cooperation*

The postulate of competence requires that ideal cooperation in order to achieve a common purpose only takes place if it seems possible to achieve that purpose. Cooperation changes the possibilities of action. New and perhaps more ambitious undertakings become possible, and individualistic action without consideration of others become problematic. Both of these tendencies give rise to conventions which strengthen them. Conventions can in turn change the domain of possible action by regulating, requiring and forbidding actions.

The application of the principle of competence will also be explicated in a principle with directives.

The principle of competent ideal cooperation

'An ideal cooperator only cooperates if he thinks it is possible to achieve the common purpose while considering others'.

A. *Active competent ideal cooperation:*

'Try to act only when, after cognitive and ethical consideration of your fellow agents, you have ascertained that the preconditions are met which make it possible to strive for the chosen common purpose'.

B. *Trusting competent ideal cooperation:*

'Assume that other agents cooperate only when they believe that the preconditions, which make it possible to strive for a chosen common purpose, have been met, whilst taking you into cognitive and ethical consideration, unless you have clear indication that they have not been met'.

This account of some of the traits of ideal cooperation will be used below to give a characterization of communication, and more specifically of conversation as a species of ideal cooperation, reinforced by conventions. The obligating force of a norm will be stronger, the more social the norms are in character. Since cooperative elements are involved in most social interaction, the various principles of cooperation will tend to have a rather strong obligating force and often they will be tied to social sanctions directed against those that do not adhere to the principles.

Just as individual action does not need to be 'all rational' or 'all normal', the degree of ideality can vary with cooperation also. We can speak of *partly ideal*, *partly typical*, *partly normal* or *partly rational* cooperation in the same manner as defined in section 5.1.4.

Finally, we should perhaps again stress the difference between agent perspective and observer perspective. What seems to be ideal cooperation to cooperating agents does not necessarily have to seem so to an observing agent. And if we speak in a more objective mode, we could say that what *is* ideal cooperation does not have to seem to be, either to the cooperating agents or to the observer. The only thing that our analysis gives us a right to expect is that individuals, in so far as they are normal rational agents who are cooperating, will try to follow the principles of ideal cooperation.

Part II Communication

6 INTRODUCTION

The term *communication* is used in many different ways. In its widest sense, it is used to designate the sharing or transference of any phenomenon whatsoever between two entities. E.g. in physics, one speaks of 'communicating vessels' or of the 'communication of power to a machine'. In accordance with rather general practice in psychology and the social sciences, I will here use the term in a slightly narrower sense to designate any such sharing or transference which takes place between human beings³⁰ with some (perhaps low) degree of conscious awareness.

Since this definition of communication still gives us a much wider notion of communication than that which is applicable to paradigmatic cases of 'human communication', I will, in the chapters that follow, restrict the notion in various ways, but will not change the definition given here. Instead, more restricted senses of communication will be distinguished by the introduction of special terms or adjectival modifiers like *full-blown*.

Further, the terms *sender* and *receiver* will not be used in their most general sense as anything emitting or receiving information, but only as denoting agents who in such capacities are capable of some degree of consciousness or intentionality, i.e. in the present thesis only human beings. By the term *communicative activity* will be meant any activity related to the sending or receiving of information from one agent to another and, by the *communicative status* of any such activity, will be meant the differences a sender and a receiver can exhibit in level of consciousness, type of intention and degree of acceptance with regard to the communicative activity.

We will now consider if our description of action and of how consciousness of the meaning of action arises can contribute to an understanding of how different individuals can send and receive information. This will be done by trying to take seriously the idea that communication is a species of cooperation connected with rather special intentions and purposes.

We will try to show that communicative activities are regulated by exactly the same norms and assumptions that apply to all other normal rational activities. In addition, there are conventions which are completely specific to human communication.

In chapters 7 and 8, we shall therefore try to present a taxonomic framework for the description of the communicative activities of the sender and the receiver which will then in chapter 9 be used to provide a definition of full-blown paradigmatic human communication, as a species of cooperation

³⁰ Since what is crucial here is conscious awareness, we could substitute 'human beings' for 'entities capable of conscious awareness' and thus leave room for computers of a hitherto unachieved sophistication.

7 THE SENDER

7.1 INDICATORS

All objects, including human beings, that an individual encounters are potential sources of information to him. An individual can normally, on the basis of his own experience, by inference or other means, apprehend information about the world around him.

Iff a certain object or trait of a concrete object is a source of information to an observer at a certain point in space and time, I will say it is an *indicator* for that observer at that point in space-time. In what follows, I will use *object* in an abstract sense to include abstract entities like mathematical numbers as well as more concrete entities like animate conscious beings; their emotions, attitudes and behavior, and other traits of concrete particular objects. Thus, the blueness of a particular concrete car is an object. (For a discussion of states of affairs, which we will say are a set of objects standing in some specific relation to each other, see section 8.4.3). *Information* will be used as an abstract term for any object that could be apprehended with some degree of alertness by a conscious agent. Further, an object is *informative* iff either the object itself, or some other object connected with it, is apprehended by an agent. An object is an *indicator* iff it is an informative directly observable concrete object or an informative directly observable trait of such an object (also an object in the abstract sense defined above).

Iff an agent, concurrently with or after having apprehended an indicator, apprehends at least one other object, concrete or abstract, through some mental operation like inference or memory association, we will say that the indicator is a *representative indicator*, and that the indicator represents the object that was apprehended. Objects which are apprehended for their own sake only, are *non-representative indicators*. Thus, we will not follow ordinary usage in allowing objects to represent themselves. In what follows, we shall mostly be concerned with representative indicators.

Direct objects of perception, viz. green grass or white stars, are examples of non-representative indicators, while yellow leaves on trees, as indicators of fall, are representative. As regards human beings, color of eyes or hair, if apprehended directly as an object of perception, would be non-representative indicators, while big muscles, as indicators of strength, would be representative. Henceforth, the verb *indicate* will be used for *representatively indicate* and when we need to refer to non-representative indicators, we shall use the full adjectival modification.

Indicators are thus created through the conscious apprehension of a particular agent at a certain point in space and time. They are not informative without a conscious observer's apprehension of them and the total context in which they occur. The information carried by an indicator is entirely relative to the presuppositions and experience of an individual observer. One may regard an indicator as a salient situational feature focussed on by an observer in gathering information about the situation as a whole. This characterization makes 'indicator' a concept completely oriented toward particular individuals at particular points in space and time. However, we could also characterize a concept of indicator not in

this way dependent on particular individuals, situations and points in time, but rather on types of situations, and types of objects, and a particular community of individuals. We would then get a more community-oriented dispositional indicator concept. Individuals in a certain community tend to regard a certain type of situation as an indicator of a certain type of information. In what follows, it is this latter concept which, unless explicitly indicated otherwise, will be intended by the term *indicator*.

The community-oriented indicator concept as summarily characterized here bears much likeness to the sign concept as characterized by C.S. Peirce.³¹ Peirce distinguished three main types of signs: symbols, indices and icons. By a symbol, Peirce meant a representative indicator which represented information by convention. By an index, he meant a representative indicator which to some observer (interpreter) was associated with information through causality or mere contiguity in space or time. By an icon, he meant a representative indicator which was associated with some information through similarity. Thus the word *smoke* would be symbolically related to smoke. The natural phenomenon smoke would be indexically related to fire and a painting of smoke would be iconically related to the natural phenomenon. In the account proposed here, symbols, indices and icons will be considered as three subtypes of representative indicators.

7.2 INDICATIVE BEHAVIOR

7.2.1 BEHAVIORAL INDICATORS

If an individual, through his behavior, becomes an indicator of some information to some observer, we will say that his behavior is *indicative* of, or that he *indicates*, that information. The observable behavioral feature which is the focussed vehicle or source of information will be referred to as a *behavioral indicator* of information. In the same manner as above, we will distinguish between *representative* and *non-representative* behavioral indicators.

Since 'information' is mostly used in connection with active transferring of information, the phrase 'indicate information' sounds a little strange, but I will keep it since I think it adequately describes the phenomenon I have in mind.

Apprehension of information is the most primitive case of a receiver-centered communicative activity. Whatever information is transferred depends on an observer and his particular experience, presuppositions and means of obtaining information. E.g. if A wears a sailor's cap and walks with a rolling gait, B on the basis of his experience with sailors can draw the conclusion that A is a sailor, thus treating the cap as a representative indicator. He could also treat it non-representatively by just noting its color or shape.

In order to indicate information, the individual who is the source of information (the sender) does not need to have any thought of conveying any information, he can just behave and act while the observer- receiver draws conclusions about him. The observer only becomes a receiver in a more proper sense when the sender specifically focusses on

³¹ See e.g. Buchler 1955, chapter 7.

him and tries to affect him in various ways by communicative activities. But a receiver will always retain his capacity as an observer since any sender-centered communicative activity can always be regarded as indicative by the observer. This will be true also when the sender is employing behavior with conventional meaning for his communicative activity.

An individual can indicate information in at least two ways:

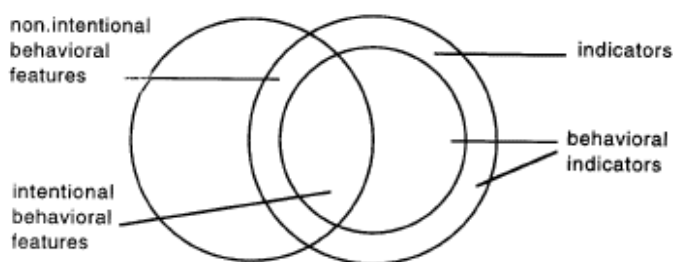
1. Through unintentional behavior. A can convey that he is afraid, nervous or upset by shaking hands with a sweaty and trembling hand.
2. Through intentional action. An observing individual can draw conclusions about another individual's actions on the basis of his experience and assumptions about normal rational action.

E.g. if A raises his axe, B can draw conclusions about the meaning of A's behavior. He could, for example, infer that A has raised his axe to chop wood rather than to murder him. What B, if he draws this type of conclusion, is relying on, is the kind of natural ties and assumption of normal rational agenthood that we have discussed in chapters 2, 3 and 4, i.e. the ties that obtain between reasons, motives, intentions, purposes, behavior and a specific action. This could, if one liked, be regarded as one type of indexicality in Peirce's sense, even though I am not aware that Peirce himself noticed it. However, it has been noticed by other authors (in the discussion of so-called practical syllogisms (see von Wright 1971, 96-118)) and some energy has been spent on discussion of whether the connection between purposes, intentions, behavior and action can be regarded as a kind of logical or nomic connection. For our purposes, it is enough that such connections exist in the sense of the phenomenological normality assumptions we have discussed in chapter 5; what we are now trying to show is that senders and receivers (observers) actually make use of these assumptions in sending and obtaining information.

One more word should perhaps be added about behavioral indicators. Whenever we refer to a feature of an activity in this way, we are regarding it as an entity carrying information and are in a sense, by abstraction, reifying aspects of what really is a process. Another way of putting this is that we want that feature of the activity to be conceived in the *object* rather than in the act sense. See Garner 1971, and Wetterström 1975 §14.

Finally, we will give a summary picture of the relationship between behavioral indicators and indicators in general in a diagram (figure 1).

Figure 1



7.2.2 CLASSIFICATION ACCORDING TO MOTOR ACTIVITY

Besides dividing indicators into behavioral indicators and other indicators and behavioral indicators into intentional and unintentional activity, all active behavior can profitably be divided according to what part of the body the behavior is produced by. Important such behavior is:³²

1. facial (oral (vocal) and ocular behavior esp. relevant)
2. head movement
3. manual and pedal gestures
4. the posture of the whole body

7.2.3 EXPRESSIVE FUNCTION

Two of the more salient types of information about an individual which are commonly indicated by the objects or behavioral features which are connected with the individual, are:

1. information about *psychological states* e.g. a loud and jerky manner of speech indicates anger, and tears indicate grief.
2. information about *social status* e.g. dialects and clothes can indicate geographical origin or social class.

The psychological states include what we have earlier called motives (section 2.2) but they also include emotions which give rise to unintentional behavior, e.g. grief and tears. To the extent that a certain psychological state gives rise to a particular type of behavior, we will say that the behavior *expresses* the psychological state. We will divide the psychological states that can be expressed by behavior into two groups.

1. *Emotional states*

Emotional states range from the physiological drive-like states of thirst, hunger and sexuality to the more social ones like despair, joys calmness and satisfaction.

2. *Attitudes*

Among the motives, we have already encountered such attitudes as desires, wants, and acts of will, but attitudes range over a much wider spectrum; from the basic physiological ones, such as fear and aggression, and social ones, such as love and hate, to intellectual ones, such as interest. An especially important class of attitudes in dealing with communication, to which I will count all cognitive states such as belief and understanding, is the class of *propositional attitudes*. These are so called since they are directed toward propositions,

³² For a more extensive discussion of the different ways in which behavior can be informative, see Argyle 1975.

entitites which perhaps could be characterized as the descriptive informational content of an assertion. In (14), (15), and (76) below, we give examples of three different types of propositional attitude.

(14)		(15)	(16)
assume	think	want	doubt
believe	understand	wish	wonder
expect	be convinced	prefer	ponder
feel		desire	consider
fear		hope	be uncertain
forget		intend	worry
imagine			
guess			
know			
realize			
suspect			

Although these attitudes fall into three classes they all concern the relation between an agent, and the correspondence between a proposition and the world. The first class (example 14) contains verbs that concern the agent's view (for example, his degree of certitude) of the existence of that correspondence. The second class (example 15) contains verbs expressing the agent's desire that such a correspondence should come about, and the third class (example 16) contains verbs that express an agent's concern whether such a correspondence holds or not. The verbs are grouped together on semantic grounds although there seems to be some syntactic support for the grouping in the differences between complement types. But since many of the verbs can take two complements, and such evidence is language specific anyway, the syntactic criteria are not decisive.

The use of the term *express* is thus wide enough to cover the expression of all emotions and attitudes. E.g. if A who is thirsty goes to buy beer from B on a hot day, his behavior would express both his thirst, his belief that he can buy beer from B, and his intention to buy beer from B.

We will refer to the psychological states that are expressed by a certain type of behavior as the *expressed psychological states* of the behavior. Further, we will say that the *expressive function* of the behavior is to express a certain psychological state.

A feature of behavior is a *representative expressive behavioral indicator* iff an observer sees the feature as expressing some particular psychological state. The expressed psychological state will, in those cases where it is conscious, be identical with the motive (in our sense) of an action.

A few words should perhaps also be added about the term *function*. Just as with intention, it has been suggested that the use of this term (in the non-mathematical sense intended here) requires a teleological type of explanation (Taylor 1964 chapter X). However, just as earlier (section 2.4.1), I see no necessity for this and will therefore use the term *function* as synonymous with *effect*. Sometimes in the social sciences, function is reserved for certain special types of effects such as those that have survival value for a homeostatic system.³³ In

³³ For a discussion of these points, see Nagel 1961 and Allwood 1969.

analogy with our use of purpose as intended effect, we will also speak of purposes as *intended functions*.

Besides indicating psychological states, we saw above that behavior can indicate things like social status. As this is a rather important function of behavior, we will, in analogy with expressive function, introduce the term *primary social function* to designate the behavioral effects of an individual's membership in a certain social group. These effects will all be more or less conventional. The secondary effects of similarity in group behavior, e.g. social cohesiveness (i.e. the fact that conventions and similarity in behavior seem to have the effect of a 'social glue' on the members of the group), we will refer to as *secondary social functions*. See Merton 1968, chapter XI.

7.3 MANIPULATION

From the point of view of the sender, the communicative process begins when he consciously begins to manipulate the individuals around him. By *manipulation* will be meant any action intended to bring about a reaction in another individual. The intention accompanying a manipulatory action will be called an *evocative intention*. The manipulatory action need not be apprehended by the receiving individual. Manipulation qualifies as a communicative activity (see chapter 6) because of the sender's conscious intention to manipulate.

Four main types of such intended manipulatory effects are:

1. Emotional (including states such as hunger and pain)
2. Attitudinal (including mere attention, apprehension, beliefs and other cognitive states)
3. Mental operations (such as inference in order to be able to apprehend a certain piece of information)
4. Behavioral (intentional and unintentional)

Some types of manipulation can be accomplished by directly evoking reflexive reactions in an individual, e.g. inflicting pain on someone by hitting him or by producing loud noises. However, most types of manipulation are not aimed at direct reflexive reactions but at some type of conscious reaction, allowing an individual to act as a normal rational agent with regard to the information that is communicated to him. In general, we can say that an individual can intend to manipulate external behavior (not action) when he becomes conscious of the external behavior of other individuals, but that socialization and self-projection (section 4.2) are required as soon as he wants to evoke conscious or intentional activity, like emotions, attitudes and action.

7.4 DISPLAY

7.4.1 ACTS OF DISPLAY

The first stage of evoking a conscious reaction is very often to get an individual to merely apprehend³⁴ or attend to some specific object. We will call a manipulatory action which is intended to make a receiver at least apprehend or attend to a certain object, through some manner of apprehension (see 8.3) like direct observation or inference, an *act of display*.

When an object (in the abstract sense including behavioral features) is displayed, the sender wants the observer, at least, to attend to the object; the observer can react in other ways too, but they are not analytically part of the intention to display. The sender, with some degree of awareness must have made the assumption, through self-projection, that the receiver is capable of conscious apprehension.

7.4.2 REPRESENTATIVE AND NON-REPRESENTATIVE DISPLAY AND DISPLAYORS

Display can be representative or non-representative. Iff the sender intends the receiver to apprehend the displayed object as a representative indicator of some other object, he has an intention to *display* the object *representatively*, and iff he intends the displayed object to be apprehended as a non-representative indicator, he has an intention to *display* the object *non-representatively*. We will refer to the sender's corresponding actions as *representative* and *non-representative display*. A behavioral feature or other concrete object used to display information either representatively or non-representatively will be called a *vehicle of display* or a *displayor*.

In non-representative display, the displayor itself is what is primarily intended to be apprehended, but in representative display, the apprehension of the displayor is just intended as a means of drawing the receiver's attention to the information that is really displayed. We will call a displayor of the first type a *non-representative displayor* and a displayor of the second type a *representative displayor*.

The acquisition of a social self-consciousness is an important pre-condition for many types of display. The individual uses the possibilities his social self-consciousness gives him to influence other individuals. Since A has a good idea of how other individuals experience his behavior, and has expectations concerning what conclusions they probably will draw from it (on the basis of cognitive consideration of the type we discussed in chapter 5), he can, instead of genuinely acting, through a kind of iconicity, act with the intention of representatively displaying to a receiver-observer that he is acting with exactly those naturally connected purposes and reasons.

³⁴ *Apprehend* is here used for mere conscious uptake of information without any sense of fear or dread involved.

E.g. by moving his hands rapidly in front of his perspiring face on a hot day, A can, by his external behavior, representatively display both the intention that identifies his behavior as an action of a certain kind, e.g. fanning oneself, and also his motive for the action, e.g. his feeling of discomfort in the heat. A would here be representatively displaying, in the first case, the purpose of the behavior, and in the second case, the motive or the expressive function of the behavior. Thus, besides being expressed, psychological states can be displayed.

An act of display is thus a rather complex intentional action involving, at least the following intentions, with some degree of awareness:

1. the instrumental plan (section 2.5.2) governing the manner of display, and
2. the purposive plan governing the information intended to be communicated, based on assumptions about shared cognitive presuppositions and normal rational agenthood, i.e. based on expectations concerning the kind of information that the receiver, through inference and other mental operations, can reasonably be expected to apprehend the displayor as representatively indicating.

The intention to display is, thus, based on a number of expectations, acquired through reflexive self-projection, about what kind of information a certain displayor through direct observation, inference and memory can reasonably be supposed to trigger apprehension of in a receiver. The intention to display is often subordinated to further evocative intentions. E.g. the sender can intend the information he expects the receiver to apprehend to give rise to belief or action.

7.4.3 CONCEALED DISPLAY AND DECEPTION

Not only is display often undertaken for the sake of further manipulation than mere apprehension, but sometimes the manipulation would not be possible if the receiver realized that he was being exposed to an act of display; if A, in trying to gain B's favor, works hard to show B that he works hard rather than to work hard, and B notices this, there is a fair chance that B will disapprove of him and think that he is an ingratiating rather than a hard working person, and that A's intentions therefore will fail. The sender will then try to *conceal* the fact that he is displaying and try to look as if he were acting genuinely. An object (including action) which is such that the sender could not openly have displayed it, or which is such that its intended manipulatory effects could not have been achieved if the receiver had known that it was displayed, will be called a *deceptive object*. This label will in most cases apply to representative display of action. If none of these two conditions hold, but the sender still wishes the fact that he is displaying, rather than acting with no intention to display, not to be known, his action is not deceptive, only *concealed*.

Since deception, but perhaps not mere concealed display, in the long run would be a hindrance to ideal cooperation, there is strong social disapproval against it (see section 11.3.4).

7.4.4 **MANIPULATORY INTENTIONS, CONTENT, INTENTIONAL DEPTH AND TOTAL ACTION MEANING**

The information a sender wants a receiver to attend to in displaying, we will call the *intended display content*, or the *content being displayed* by the sender. The sender's intention to evoke certain effects in the receiver by displaying the content, we will call the *evocative intention* or *manipulatory intention* or *intended evocative* or *manipulatory function* of the act of display. We will separate this intention from the other psychological states which are expressed by behavior, since these other states often are concurrent with the manipulatory intention and in fact give rise to it. The label *expressed psychological state* will accordingly be used to indicate all psychological states except manipulatory intentions.

Consider as an example a child who is lifting a chair to impress the adults around him. His lifting of the chair will be the intended *non-represented content* of his act of display, while his presumed strength will be the intended *represented content* of the action. The receiver's direct apprehension of the non-represented content, his inference of the represented content, and as a result being impressed, constitute the intended manipulatory function.

So, we see that content and manipulatory function are interdependent. The intended represented content presupposes apprehension of the non-represented content, followed by inference, and the most superordinate manipulatory intention - the intention to impress - presupposes apprehension through inference of the represented content.

The purposive plan (section 2.5.2) connected with an act of display can thus, besides minimally containing the intention that an object, at least, should be apprehended, contain intentions regarding the conclusions that the apprehended information should make the receiver draw, and the further effect that these conclusions should have on the receiver. We will refer to the hierarchy of embedded content and manipulatory intentions in the purposive plan as the *intentional depth*³⁵ of the act of display. The intentional depth will thus be directly related to the number of separable intentions we can correctly specify 'de intentione' for a certain agent (see 2.3.1 and 2.5.1).

It is important to note that the intention to display is itself a manipulatory intention, since it aims to affect the receiver, at least to such an extent that that he will attend to something. As we have noted, there is nothing that prevents one manipulatory intention from being subordinated to another, thus increasing the intentional depth of the purposive plan governing an act of display. A does not work hard just to show his boss that he is a hard worker. He also wants the boss to draw the conclusion that since A is a hard worker, he should be next in line for promotion.

The intention to display can thus be subordinated to more far-reaching manipulatory intentions. These more far-reaching manipulatory intentions can also be displayed if the sender thinks that the receiver he has in mind will be capable of inferring what manipulatory effects the sender has intended his actions to have. The sender can, in fact, successively display manipulatory intentions until he reaches what he considers to be the

³⁵ The notion is found in Naess 1966, 34.

processing limits of the receiver (see section 4.2.3). Each new level of display can in turn be combined with a new undisplayed manipulatory intention.

How are the various phenomena discussed here related to 'meaning' in the sense characterized in section 2.4.2? Since we stipulated there that an agent means to do everything he intends to do, it is correct to say that all manipulatory intentions including the intentions to display are part of what an agent *totally means* by the action that is connected with his intention to display. Similarly, the agent's total purposive plan can be identified with the total meaning of the action i.e. the *action-meaning*. The intentional depth is, thus, a measure of the complexity of the action-meaning.

The action-meaning of an act of display is not identical with what we have called the content of the act of display. Consider again the chair-lifting child above. The chair-lifting and his strength constitute the child's intended content. However, he does not want to display his intention to impress the adults around him. This intention is not part of the content, but only of the total action-meaning. Thus, a sender's intentional depth is not exhausted by intended content.

The content is, thus, the object or information that one intends to display - an abstracted reified aspect of the total intention to display. In ordinary discourse, this difference between the intention to display some information and the displayed information itself is one of the many ambiguities inherent in the use of the term *meaning*, i.e. *meaning* the sense in which content is used here.

7.4.5 *MATTER AND QUALITY*

In the same way that all manipulatory intentions are part of the total meaning of an action, connected with an intention to display, all intended expressive functions are part of that total meaning too.

Further, other psychological states expressed by a certain type of behavior can be representatively displayed just like a manipulatory intention can. All displayed psychological states, including displayed manipulatory intentions, will then be part of the content, i.e. that information which is displayed.

Besides abstracting content from the intention to display, I now want to propose a further act of abstraction. If we consider the display of a psychological state such as pain, love or belief, we can, in the content being displayed, abstractly distinguish its *quality* from its *matter*. E.g. if we compare a *hope* that it will rain with a *belief* that it will rain, the two attitudes have a common matter, but differing qualities. The matter is what the two attitudes have in common - the mental correspondent of whatever the attitudes are directed toward, while the quality is what distinguishes different attitudes which contain the same matter. The notions of quality and matter proposed here are in certain respects similar to the notions *Materie* and *Qualität* proposed by Husserl 1913, 411-2 and the notions *intentional mood* and *intentional directedness* proposed by Wetterström 1975 § 22.

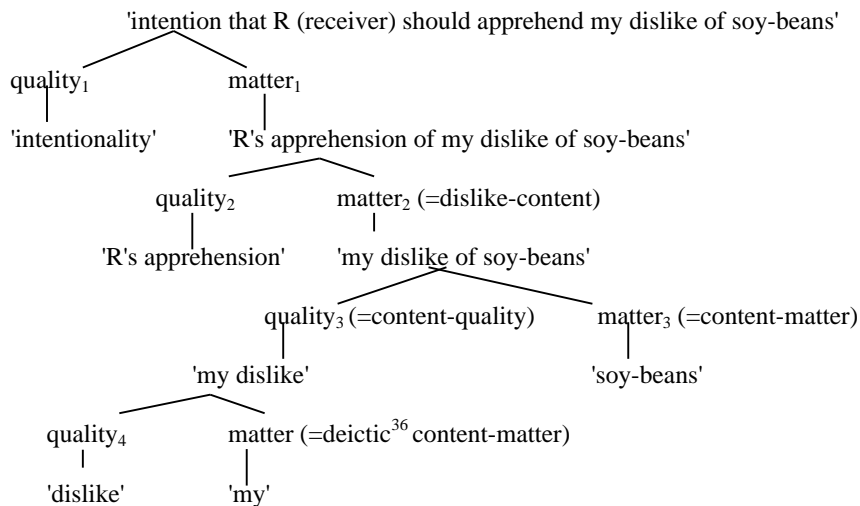
Since intentions connected with action are a special type of attitude, they also have quality and matter. Their matter is the mental correspondent of whatever end they are directed towards, and their quality is the conscious state of being directed toward a certain end.

Thus, intentions differ from each other primarily in terms of matter and not in terms of quality, just as different beliefs would do. What corresponds to the matter of what we have called a manipulatory intention is a reaction intended to be evoked in a receiver.

Matter and quality can be hierarchically related so that what is quality on one level can be part of the matter of another level, i.e. if I believe that I dislike soy-beans, the matter of my act of belief would be analyzable into quality and matter at a lower level. When need be, we will distinguish different levels of quality and matter by numerical indices, where the indexing will start from the least embedded levels.

An act of display is connected with a manipulatory intention. We can therefore distinguish its quality₁ (similar to other intentions) from its matter₁, i.e. an intended act of apprehension on the part of the receiver. Since the matter is an act of apprehension, we can distinguish its quality₂ (the specific traits of apprehension) from its matter₂ (the mental correspondent of what is to be apprehended). It is this matter₂ that we have called the display-content. If the display-content is an attitude of the sender's, it can again be subdivided into quality₃ and matter₃, i.e. if I am displaying my dislike of soy-beans, my dislike would correspond to quality₃ and the soy-beans to matter₃. The following tree diagram shows the relations between the various levels of quality and matter.

Figure 2



36

7.4.6 CONTENT-QUALITY AND CONTENT-MATTER

The diagram also shows that quality on lower levels than level 1 are tied to some subject, i.e. they are the psychological state of a particular agent, who in fact represents the matter of the most embedded mental act. Further, the diagram shows how we can distinguish content-matter from content-quality in the display-content, and how content-matter is divisible into a deictically determined part and a non-deictically determined part. An act of display has a *content quality* iff a sender is displaying one of his psychological states. Thus,

³⁶ For a discussion of the notion of deixis, see Lyons 1969, 275 ff.

it is not sufficient that he merely expresses a psychological state through his act of display; he must intend to display it as content. Any information that is intended to be displayed which is not content-quality is *content-matter*. Some acts of display like pointing have only content-matter, i.e. the object pointed to. However, there are probably no acts which have only content-quality, since the quality is always deictically anchored in a certain agent.

Content-quality and content-matter can be seen as two abstract aspects of the content of an act of display - an object which is itself rather abstract. Content-quality and content-matter can be hierarchically related in a similar manner to quality and matter, i.e. A can display to C his belief that B likes soy-beans. We will use numerical subscripts to indicate the degree of embedding of content-matter and content-quality in the same manner that they were used with quality and matter simpliciter.

For quality, in general and, also for content-quality, we will distinguish manipulatory intentions from all other types of quality. The quality corresponding to a manipulatory intention will be called *manipulatory quality* and when it is displayed, *manipulatory content-quality*. All other psychological states will in contrast be referred to as *expressive qualities* and *expressive content-quality*. Correspondingly, we shall also speak of *manipulatory* and *expressive matter* and *manipulatory* and *expressive content-matter*, as terms for the matter of a manipulatory intention and for a psychological state which is not a manipulatory intention respectively.

Let us now try to exemplify the concepts we have introduced. If A makes a loud noise to B in order to display a sudden feeling of pain which he is experiencing the expressive content-quality₁ of his display is pain, but if A makes a threatening gesture intended to display to B his intention of inflicting pain upon him, the manipulatory content-quality₁, would be manipulatory intention, and the manipulatory content-matter₁, would be the feeling of pain intended to be evoked in B, i.e. a quality₂ in itself. Thus, a feeling of pain will in the first case be expressive content-quality₁ and in the second case be manipulatory content-matter₁.

All the sender's communicative activities, besides displayed content, have non-displayed expressive and manipulatory functions. They have expressive functions since they are normal actions with motives (section 5.1.3, principle 4) and they have manipulatory intention since they are communicative.

The difference between displayed and non-displayed psychological states can perhaps be best illustrated by the following example. A tries to display to B his affection and intention to kiss her, since he is afraid of B and wants her to run away, believing that B cannot stand kissing and affection. A's affection would here be the expressive content-quality, his intention to kiss B would be the manipulatory content-quality. But the actually expressed psychological state is A's fear, and the actual manipulatory intention is to make B run away. So, there is no necessary connection between actual quality and matter, which we will call *subjective quality and matter* and content-quality and matter. Often, the two correspond, but they need not to, as can be seen in acts of deception.

Further, the example makes it clear that there can be several simultaneous content-qualities, i.e. here expressive and manipulatory content-quality. As we shall see, there could also be others.

7.4.7 INTENDED CONTENT - AND INFORMATION INDICATED TO RECEIVER AND OBSERVER

The fact that A intends to display to B that he is an Arab, by wearing a burnoose, does not mean that B will actually draw this conclusion. The *intended* or *sender content* can differ from the information a receiver apprehends the sender's display as indicating. *Indicated information* apprehended by a receiver does not have to be identical with intended content.³⁷ Imagine for example that B in the example above draws the conclusion that A is on his way to a fancy dress ball.

Further, C, an observer of A and B, can draw conclusions about A's behavior, which are different both from A's intended content and the information indicated to B. The *indicated information* apprehended by an observer can differ both from the information intended by the sender, and the information apprehended by the receiver. An example of this would be that an observer infers that A is trying to conceal his identity from B (see also sections 10.4.2 and 10.5).

7.5 CONVENTIONALLY REGULATED BEHAVIOR, DISPLAY AND MEANING

7.5.1 CONVENTIONAL BEHAVIOR

To act conventionally just means to perform behavior with a conventionally given purpose, i.e. to behave in a way which is generally supposed to be the correct way of achieving a certain purpose. So, if one wants to drive, e.g. in England, the correct way of doing this is by conducting your car on the left side of the road. If one wants to eat correctly, the way to do that is to use both knife and fork as tools during the entire meal. Proper driving and eating are therefore conventional actions - behavior with a conventionally determined purpose. When such behavior occurs, its purpose is therefore readily available to an observer.

The experience of the observer remains the decisive factor determining how much information is conveyed. Thus, the status of conventional action, as a source of information, is in principle no different from any other indicated action.

³⁷ This is the point of a rather tragic poem by Stevie Smith 1962, pointed out to me by Catherine Paterson. I quote the first stanza:

Not Waving but Drowning
Nobody heard him, the dead man,
But still he lay moaning:
I was much further out than you thought
And not waving but drowning.

7.5.2 CONVENTIONAL BEHAVIOR AND MEANING

When a purpose is conventionally linked to a certain type of behavior, we will say that the behavior has a conventional meaning, i.e. a *conventional action meaning* (in the sense of 7.4.3). Since the purpose of a conventional action is more likely to be apprehended than the purpose of a non-conventional one, display of conventional action-meaning is likely to be easier than display of non-conventional action-meaning. However, this does not entail either that the display itself or its content is conventional. Eating in a certain way is not the conventional way of displaying proper eating, but the conventional way to eat properly. We shall see later (chapter 10) that conventions can also regulate the act of display itself by tying a certain content by convention to a displayer, or by regulating the manner in which the display should be performed. Thus, we could say that displaying that one is 'eating properly' by eating in a certain way involves non-conventionally displaying a conventional action-meaning as a non-conventional content.

7.6 DISPLAY, CONTEXT AND BUDDING COOPERATION

Let us now consider the traits of an individual's social self-consciousness which he utilizes in displaying action. In order to successfully display, A must take into account B's possibilities of connecting an appropriate intention with the behavior he is exhibiting. The probability that B can make the desired connection is greater if the behavior is connected with a conventional purpose which coincides with the information that A wants to display. A kisses B on the mouth to show his love for B (the claim that oral kissing is a conventional way to show love is made in view of the fact that it does not seem to be a culturally universal phenomenon, cf. Eskimo nose-rubbing). But B also has the possibility of making the desired connection if there is a natural tie between the intended displayed content and the behavior A exhibits. As we have seen in section 3.3, B's possibilities of making the connection are also dependent on the situation where A's behavior takes place. A certain tie between behavior and intention is always natural, relative to a certain situation. If A, with one hand hanging loosely down his side, stretches his other hand toward a jar of cookies on a high shelf, it is more natural to believe that he is trying to get the jar of cookies than that he is performing a Hitler salute.

Thus, if A is to be said to display a certain piece of information, it must be the case that he, whilst cognitively considering B's possibilities of grasping the information, intends that B should grasp the information in question. So already with a relatively primitive communicative action like display, we notice that the sender must take the receiver into consideration, i.e. mainly consideration of shared cognitive presuppositions (section 5.2.3).

Display and manipulation in general can, in fact, be described as a kind of unilateral sender base for cooperation. The sender is pursuing only his own goals; there is not yet a common purpose, but he is doing it rationally under the constant consideration of the receiver. If a common purpose were established which the sender and receiver, under mutual consideration, both could strive for, we would have cooperation.

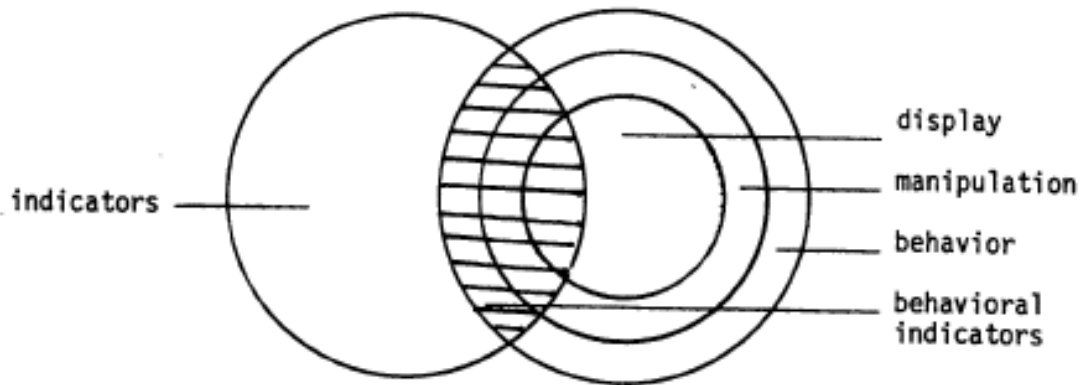
As we will see, mutual consideration and cooperation are in actual fact one of the most distinguishing characteristics of communication.

7.7 INDICATORS, BEHAVIOR, BEHAVIORAL INDICATORS, MANIPULATION AND DISPLAY

7.7.1 IMPLICATIVE RELATIONS

In figure 3 below, we depict the implicative relations between indicators, behavior, behavioral indicators, manipulation and display.

Figure 3



The relationship between indicators and behavior is one of intersection. Not all indicators are behavioral and not all behavior is apprehended as an indicator by anybody. In the intersection between behavior and indicators, we find behavioral indicators. Further, we find display and manipulation successively and properly included in behavior, and intersecting with indicators. Not all acts of manipulation or display are apprehended. There is display which is ignored by the intended receiver.

Consider again the three ways in which an individual can be an indicator of information:

1. through all the observable objects and features with which he is connected.
2. through all observable unintentional behavior.
3. through all observable intentional action.

Among the indicators of type one, some will be the products of an agent's own actions and some will not. E.g. imagine A losing an arm in an accident for which he is not responsible. The missing arm would be an indicator (of type one) of A's having been in an accident.

We now turn to the relation between display and manipulation. One can manipulate an individual without having him attend to any information. He is affected directly. Not even when the manipulation is indirect through external objects need it be a case of display, even though it usually is. If one constructs a pitfall or a snare to make an enemy fall or pulls a practical joke on someone, it would be a case of indirect manipulation through external objects, but not a case of display, whether it be concealed or not. However, by definition, there is no display which is not manipulation. Thus, display is properly included in manipulation, and by virtue of the relation between manipulation and behavioral indicators, it also intersects with behavior functioning as a behavioral indicator.

7.7.2 COMMUNICATIVE ACTIVITIES AS INTENTIONAL ASPECTS OF THE SAME BEHAVIOR

So, besides being an intended indicator of something, an act of display is always concurrently a manipulatory act (intended to catch, at least, the receiver's attention). The purpose connected with an act of display and the various other manipulatory purposes can be regarded as specifications (see section 2.5.1) of related distinct purposes connected with the total action-meaning. In the same manner, the act of display itself should be regarded as a specification of an aspect of the total action with which it is connected. Thus, display and manipulation are related distinct intentional aspects of one and the same behavioral activity.

It should be mentioned that regarding communicative activities as intentional aspects of one and the same behavior, fairly well accords with what seems to be the most reasonable interpretation of the communicative activities suggested by Austin 1962, i.e. the locutionary, illocutionary and perlocutionary acts as well as of those suggested by Searle 1969, i.e. the reference act, the illocutionary act etc.

7.8 UNINTENTIONAL BEHAVIORAL INDICATORS AND DISPLAY

7.8.1 MANNER INTENTIONS AND UNINTENTIONAL BEHAVIORAL INDICATORS

Both the manipulatory intentions and the intended display-meaning can be combined with other intentions, to which they can be sub- or superordinate. One important type of subordinate intentions are the *manner*-intentions which often aim at making the display more effective. Such intentions are usually part of the instrumental plan rather than the purposive plan for the behavior. See section 14.3.

However, the various aspects of an act of display are not always intentionally related by a sender. He can be an unintentional indicator of information in many more ways than he can control intentionally.

The following example shows how an individual can be an unintentional source of information concurrent with an act of display. A wants to display her affection and positive attitude towards B by paying him compliments; in doing so, she speaks in a Brooklyn accent. The dialect she uses is not part of the display, but would, if it were pronounced enough, be an unintentional behavior-indicator of her geographical origins.

In the example above, the indicated information was unrelated to the displayed information. However, the two types of information can also be related. When they are, they very often either reinforce or weaken each other's effect. Suppose, in the example above, that A, with a subconscious malicious smile, pays her compliments to B. The unintentional malicious smile will then weaken the effect of the displayed affection. But A could also have a warm and friendly smile and a sincere look in her eyes. What her behavior is indicative of will, in this case, tend to reinforce what she is displaying.

7.8.2 DISPLAY AND INTENTIONAL CONTROLLABILITY

Most behavior and actions are not displayed. One does not normally dig, stumble or wear a sailor's cap to show (display) that one is digging, stumbling or wearing a sailor's cap, but because one intends to dig (e.g. a trench) or didn't look out (unintentional behavior), or because it's cold. An observer can always draw conclusions about all these things. Any behavior can be indicative. However, this does not mean that they are normally displayed.

But since normally does not mean always, this can change, and most of the behavior that is normally not displayed, can become displayed. Perhaps A wants to display his stumble to B in order for B to draw conclusions about his eyesight and need of social aid. Sometimes the label 'selfconscious' (not completely identical with the use I have made of this term above) is used to indicate a person who in this way a little too often worries the information he will display through his actions.

Even if most behavior can be displayed some cannot. One of the factors that prevents certain types of behavior from being displayed is that they are very difficult to control intentionally. Display entails that the vehicle of display is intentionally controllable. Seating and shaking hands which are indicative of fear, excitement or nervousness are an example of something that cannot be intentionally controlled by most people and therefore cannot be comfortably or convincingly displayed, for example in order to deceive somebody.

This is one of the reasons why behavior which is usually unintentional gives a more genuine impression when it is unintentional than when it is displayed. If somebody with sweating hands and shaking hands, and a trembling voice says: 'I am not at all afraid', one feels relatively convinced of the opposite. A receiver of both displayed and unintentionally indicated information will usually trust the information that is unintentionally indicated and in that way eliminate the source of error provided by the intention to display. A further reason for this is that, as far as unintentionally indicative behavior goes, it is, when functioning as an expression of motives and emotions very often common to man and other higher primates. There might therefore be innate factors determining both our production and perception of such behavior, i.e. a receiver might be innately more disposed to respond directly to a sender's unintentional pre-programmed behavioral reflexes than he would be to intentionally controllable behavior.

8 THE RECEIVER

8.1 APPREHENSION

8.1.1 INFLUENCE AND APPREHENSION

The receiver as well as the sender can exhibit different degrees of consciousness. Making the same idealization concerning degree of consciousness as in section 2.4.1, we can distinguish those cases where a receiver consciously attends to some information without necessarily taking any stand regarding its 'facticity', which I will call *apprehension* from other attitudes where such a stand is involved (*experience, notice, grasp* are other terms for conscious awareness of information which will all be used in the following, but which all have a slightly less general flavor to them than apprehension). Apprehension can be the result of external stimulation but does not need to be. We use the term *influence* to refer to stimulation resulting in a reaction in a receiver, whether the reaction be conscious or unconscious. Influence and apprehension thus intersect. A listener's comprehension of utterances in a normal conversational situation is a good example of influence leading to conscious apprehension of information. So-called subliminal perception is an example of influence which is supposed to take place without the person who is being influenced being conscious of it.

As we have seen, from the sender's point of view, manipulation can primarily aim at both unconscious influence and at conscious apprehension, but display always aims at apprehension first. Both activities can then aim at further reactions on the part of the receiver.

8.1.2 PURE APPREHENSION AND PURE DISPLAY

Iff an agent apprehends something without having any emotional or other attitude toward what he is apprehending, we will say that he *purely apprehends* the information. For readers who are familiar with phenomenology, we can say that pure apprehension is similar to Husserl's concept 'blosse Vorstellung', discussed in Husserl 1913, 456-7. Pure apprehension can take place with all the modes of apprehension. One can purely apprehend through any sensory modality.

Iff a sender explicitly wants to block any further reactions on the part of the receiver than pure apprehension of the object he is displaying, we will say that his action is an act of *pure display*. Pure display is, thus, a special case of display.

Pure display is probably very rare. Normally, pure apprehension is not an end in itself, but apprehension is supposed to lead to some further reaction. One could imagine the following example as a possible context for pure display and apprehension. A is testing B's powers of apprehension and awareness. He wants to determine how long B has to be exposed to an object in order to apprehend it. He, therefore, non-representatively purely displays a succession of objects to B.

Note that an act of display can be pure even if it contains intentions concerning expected inferences. It is pure as long as the information in the conclusion is intended to be merely apprehended and not to give rise to any further reactions, like belief in the facticity of the information.

8.2 DOUBLE COMMUNICATION

Apprehension and unconscious influence can be related or unrelated to each other in the same manner that displayed information can be related or unrelated to indicated information. If A leaves a brilliant lecture on mathematics with the feeling that the lecturer is a thoroughly unhappy man, this might be due to the fact that A has been unconsciously influenced by something totally unrelated to what he has consciously apprehended. A could have obtained two rather different and unrelated types of information through unconscious influence and apprehension. But unconscious influence and apprehension can also be related, and can then either weaken or reinforce each other's effect. If A expresses his joy at B's arrival, B probably feels happy if unconscious influence and apprehension reinforce each other. But if unconscious influence and apprehension were at odds instead, B could, for example, concurrently with experiencing A's message, intuitively, feel that something was wrong. In this way, communication can take place at two levels: the level where A is displaying intentionally and B consciously apprehending, and the level where A is unintentionally indicative of some information and B is being unconsciously influenced. E.g. one may feel ill at ease after a conversation which on the conscious level has been very pleasant without really knowing why.

The type of double communication discussed here is essentially of the type that has been referred to by some authors (Watzlawick et al. 1967) as 'double bind'. It has been suggested that such communication, if it is allowed to continue, can have very detrimental effects. For example, it often seems to figure in the case histories of so-called schizophrenics.³⁸

Even though double communication is characterized by a tie between indicated information and unconscious influence on the one hand, and display and consciously apprehended information on the other, such a tie is, of course, not necessary', one can consciously apprehend indicated information just as one can be influenced unconsciously by displayed information. Such apprehension and unconscious influence can, in turn, create even more complicated types of double communication.

8.3 SOURCES AND MANNERS OF APPREHENSION

A receiver can apprehend information in many different ways. I will here briefly consider the differences between sensory modalities and some other mental operations which seem to me particularly important for communication.

³⁸ For a critical view of the 'double bind' hypothesis, see Mehrabian 1972, chapter 6.

8.3.1 *SENSORY MODALITIES, MEMORY, IMAGINATION AND INTUITION*

Both unconscious influence and apprehension can be classified according to the sensory modality from which they derive. Thus, one can apprehend speech visually and auditively, or a gesture auditively, visually or in a tactile way. If A intends to say goodbye to B by waving his hand, and B notices this, then B has visually apprehended a displayed gesture. Smell and taste are probably not so important on the conscious apprehended level as they are for unconscious influence. Their role is probably greatest when it comes to interpersonal attitudes of attraction and repulsion. An individual can also apprehend information through mental operations connected with memory, i.e. by becoming aware of apprehending already stored information. Other ways to apprehend information involve imagination and intuition, which I do not intend to treat here. See, however, Koestler 1964 and Polanyi 1967 respectively.

8.3.2 *S-INTERPRETATION*

If a receiver apprehends the conventional meaning of a symbol (see section 10.4.2), I will say that he has S-interpreted (where *S* stands for symbol) the symbol.

In order to *S-interpret*, a receiver does not have to believe in, or take any other stand on the factual status of the information conventionally tied to the symbol.³⁹ It is enough that he

1. apprehends the information, and
2. apprehends the information as if it were conventionally tied to a symbol.

He can thus S-interpret an accidental traffic sound as if it were a symbol, even though it is not.

8.3.3 *INFERENCE*

Conclusion-drawing or *inference* is another important factor involved in communication. We have seen that drawing conclusions about the behavior, actions, intentions and experiences of other individuals is also one of the important factors in the ontogenetic development of a social consciousness (an individual's understanding of the actions of others, and his assumptions about how others understand him).

Drawing conclusions is here to be construed in a broad sense as inferential ability, ability to notice connections, similarities and analogies on the basis of earlier experience of particular individuals and the world in general. Drawing conclusions is thus not only an essential part of social consciousness but also of what we would call an individual's *social competence* (the kind of ability or knowledge that makes it possible for him to interact with other individuals). Consider as examples of the kind of ability we are after, A's drawing the

³⁹ The concept of S-interpretation as characterized here is similar to the notion 'uptake' in Austin 1962, 115-116, the notion 'pure uptake' in Wetterström 1975, § 8, and the notion 'understanding' in Searle 1969, 46-48.

conclusion that B is a sailor when he observes B with a rolling gait, wearing a sailor's cap, or A's drawing conclusions about B's intentional or unintentional emotional and cognitive states or social status on the basis of B's behavior. A very important case of obtaining information through some kind of inference is the case where a speaker does not actually mean what the linguistic expressions he is using conventionally and literally mean, and the listener therefore has to infer what the actual intended content, expressive functions, and manipulatory intentions must have been (see 10.5.3).

The inferences that are relevant here are both *inductive* and *deductive*. But since the premises that the inferences are founded on very often hold true only with a certain probability, the same thing will hold for the conclusions that are drawn from them, whether these are drawn inductively (with a certain probability) or deductively (with logical necessity). A conclusion can never hold with greater necessity than its premises, even if it is drawn deductively. Since inductive inference covers a very miscellaneous group of phenomena, it would be natural to introduce a few further distinctions. We can see connections, similarities and analogies in many different ways. Nevertheless, I will refrain from this and use *infer* or *draw a conclusion* as a summarizing label for all types of both deductive and inductive inference.

Both S-interpretation and inference are more complex mental activities than apprehension simpliciter. In the first case, it also involves apprehending information, as if it were tied to a symbol. In the second, it can involve first apprehending some information and then, on the basis of memory, typicality assumptions etc. inferring some other information. So, inference can involve apprehension of several different types of information in a deductive chain. But, as is known from logic, it does not have to involve belief in the facticity of the inferred conclusion, only in the validity of the inference. The factual truth of a conclusion is always conditional on the truth of the premises from which it is drawn. Thus, one can validly infer and apprehend a conclusion without necessarily believing it to be factually true.

8.4 FURTHER INTENDED REACTIONS IN THE RECEIVER

8.4.1 EMOTIONAL STATES, ATTITUDES AND BEHAVIOR

Most acts of display are aimed at more than mere apprehension. One such goal is to try to change or add to a receiver's system of beliefs. In other words, to convince him of something. But conviction and belief are only two of the reactions a sender can evoke by getting a receiver to apprehend some information. There are a number of other such reactions which more or less parallel the psychological states and behavior which we have discussed with regard to the sender, in sections 7.2.2 and 7.2.3. We will arrange them in three rough groups:

1. emotional states
2. attitudes
3. behavior

Since attitudes and emotions have been discussed in 7.2.3, I will only add a small note on the behavioral reactions here. These can be instinctive, unintentional, e.g. a receiver

escapes in panic, or intentional and purposeful, as when a receiver is carrying out some task, or commanded job according to some preplanned course of action.

8.4.2 BELIEF, UNDERSTANDING, ACCEPTANCE AND CONVICTION

Essential aspects of the informational uptake of the receiver would be overlooked if we merely paid attention to degree of consciousness and sensory modality. Just as, in studying the sender, it is important to keep in mind what information (content) the sender intends to display, how he displays it (manner), what the expressive function of his display is, and what the intended manipulatory function, over and above the displayed content, is, we must, in studying the receiver, keep in mind what information is being apprehended, and what further effects apprehended information has on the receiver. Does he, for example, experience the information he apprehends both as internally consistent, i.e. as containing no logical contradiction, as compatible with his assumptions about normal rational agents and other factual information that he already has stored in his memory? Can the receiver accept the information as his own, and if so does it necessitate changes in his system of emotions, attitudes and norms or in his repertoire of actions and behavior?

8.4.3 PROPOSITIONS AND BELIEF

One important attitude which an individual can have toward information, is belief. In order to simplify the discussion, we will first distinguish between propositional and non-propositional information.

Propositional information involves the apprehension of a relation between at least two objects (in the abstract sense of 7.1), while *non-propositional information* involves only the apprehension of a single object. We can define a *proposition* as the 'matter' of an act of apprehension of a relation between at least two objects.⁴⁰ The proposition can then also occur as the 'matter' of any other propositional attitude like belief. I have chosen apprehension in the definition since it is the most neutral of all propositional attitudes.

Since, as we have seen in section 7.4.5, the matter of a mental act can be complex, i.e. analysable into successive embeddings of matter and quality, a proposition can be complex in the same way, consisting of embedded propositions and non-propositional instances of matter or quality.

It might be thought that defining a proposition 'mentalistically' as the 'matter, of an act of apprehension, would be incompatible with the more 'realistic' notion of a proposition as a function from possible worlds to truth values, found in intensional logic (see Lewis 1971). However, if one regards the mentalistic proposition as something which enables an agent in every possible situation to determine whether a state of affairs obtains which corresponds

⁴⁰ If preferred we could also say 'the apprehension of a state of affairs', since a state of affairs minimally involves two objects related in a certain way. Further, defining proposition as the 'matter' of an act of apprehension makes it a completely mentalistic concept. This is in keeping with the 'conceptualist' approach to the theory of meaning which is implicitly advocated in this thesis.

to the proposition or not, I think the 'realistic' proposition can quite well be regarded as an abstract correspondent of the 'mentalistic' proposition.

Belief can be either *overtly* propositional or *covertly* propositional. If it is overtly propositional, it usually occurs with the complementizer *that*, i.e. *belief that*. If it is covertly propositional, it usually occurs with the preposition *in*, i.e. *belief in*.

Both overt and covert propositional belief can occur in a strong form which we will call *competent belief*, since it is a consequence of the principle of competence, and a weaker form which we will call *subjective belief*. We will first define *competent belief*, and then show how, by dropping some of the conditions on competent belief, we can obtain *subjective belief*. Competent belief will thus be a special case of subjective belief.

An agent *A* *competently believes* a set of propositions *P*, iff

1. he apprehends *P*,
2. he apprehends *P* as consistent,⁴¹
3. he apprehends *P* as corresponding to actual fact,
4. he has access to information that supports (section 2.2) his apprehension in 3, and has no information that contradicts it.

It should here be noted that it can be very hard to disentangle what propositions are involved after an occurrence of believe in; e.g. what propositions are involved in belief in things like 'kindness' which does not primarily seem to indicate belief in the actual existence of 'kindness'.⁴²

If we drop requirements 2 and 4 from competent belief, we obtain the weaker notions of subjective overt and covert propositional belief.

8.4.4 UNDERSTANDING

We will consider three types of understanding:

A) *Understanding-that* B) *Understanding-what* and C) *Understanding-why*.

A. An agent *A* *understands that S* (where *S* is a declarative sentence) iff

1. *A* through *S*-interpretation apprehends the proposition *p* expressed by *S*,
2. *A* is aware of relevant connections between *p* and his stored info
3. *A* competently believes' *p*,
4. *p* is true.

⁴¹ That is, as containing no contradictory propositions.

⁴² In order to make existential propositions compatible with our definition of proposition, we have to make existence a relational notion. An object exists in relation to some specific aspect of reality e.g. as a physical object, a mythological object etc. If one prefers a monistic notion of existence, we either have to disqualify existential propositions as propositions (for a discussion, see Moore 1936) or redefine our concept of propositional.

This analysis of *understanding that* makes it 'factive' (see Kiparsky and Kiparsky, 1968), i.e. the truth of the complement sentence is presupposed. Further, it implies belief. So, if you understand that S, you also believe that S. Condition 2 contains a fudge since it is, of course, very unclear what exactly should be meant by 'relevant'. However, the kind of relations we are after are things like entailment, similarity and analogy, as well as the possibility of subsuming the proposition in question under a general law (taken in a weak sense to include any generalizations an individual might have made about the world around him). We could leave this condition out and make the other three necessary but not sufficient conditions for an analysis of *understanding that*. The fact that condition 3 requires 'competent belief' means, among other things, that one must have support for what one understands.

B. An individual A understands what an individual B is doing iff

1. A apprehends the intended purpose X of B's behavior,
2. If B communicates some content, the content must contain no logical contradiction,
3. A 'competently believes' that X is the intended purpose of B's behavior,
4. X is the intended purpose of B's behavior.

I have here limited understanding to human action. It can also be applied to events in general, where it would imply awareness of the causes of an event. Since communicative activities are actions, we see that understanding of communicative purpose is a special case of the general understanding of action.

Further, we see that if an individual A, by an utterance, means for example the proposition p, and B understands what A means, B does not have to believe that p is true. He only has to believe that A means p. In other words, one can understand something (in the sense of understanding what) without believing it. The factive nature of understand is echoed in the requirement that what is apprehended as the purpose of some form of behavior, actually is the purpose.

In considering conventional linguistic communication (sect. 10.4.2), we must distinguish understanding what a sender means from understanding the conventional content of his utterances. E.g. if A says *it's cold*, B can understand what the content of his utterance is by S-interpreting it, but has not therefore necessarily understood what A means. (We are here using *means* not for the total action meaning (7.4.4), but for the intended content part of it). A could, for example, mean *I feel cold*. A special case of not being able to understand what a sender means, because of lack of fit between sender meaning and conventional content, is the case where a sender says something the conventional content of which is contradictory, without realizing this himself. The receiver realizes that there is a contradiction and is therefore not able to understand what the speaker means (see condition 2), even though he can S-interpret his sentence. E.g. what does A mean if he says *I both need and don't need more money*? Here, a receiver has two choices, he can ask the sender what he meant or he can construct an interpretation which would make the sentence only seemingly contradictory.

Understanding what is the most important receiver notion in ordinary verbal communication. The central task of a receiver is to understand *what* a sender means in

saying something. As we shall see (chapter 11) this task essentially involves cooperation through consideration of the sender.

C. Individual A *understands why* an individual B did X iff

1. he apprehends B's reasons R for doing X,
2. he 'competently believes' that R are B's reasons for doing X,
3. R are B's reasons for doing X.

Again, we restrict the analysis to human action. To understand why A's knee jerked in a certain way when the hammer hit it does not require apprehensions of reasons or motives. Causes are sufficient. Conditions 2 and 3 explicate the factive nature of understand. Finally, it should be admitted that in ordinary usage, there are weaker senses of the verb understand than the sense which we have explicated in our analysis of understanding. Sometimes, the verb understand merely means apprehension of information.

By a receiver's intentional depth in understanding (see section 7.4.4), we will mean the extent to which he understands what and why the sender is communicating and the extent to which he understands (that) the content which he apprehends.

8.4.5 ACCEPTANCE AND CONVICTION

I now want to claim that the conditions we have explicated for 'competent belief' are exactly the conditions that have to be met if a normal rational agent is to accept some information as his own, i.e. feel convinced about it. Thus, a normal rational agent accepts or feels convinced about some propositional or non-propositional information, iff he is able competently to believe it.

Thus, we see why it is possible to understand what somebody means without accepting it, or feeling convinced by it. Understanding what somebody means does not imply belief in what he means. It only implies belief that he meant such and such. What another agent regards as sufficient support for belief does not have to be sufficient support for me. In the same manner, understanding why an agent A did something, only implies that one has beliefs or feels convinced about what A regards as the supporting reasons for his actions. It does not imply that I myself regard A's reasons as sufficient support for his actions. I can understand why someone did something without believing that his actions were reasonable. However, I cannot understand that something happened without concurrently believing that it happened. This follows since we have made competent belief one of the conditions for understanding that. Finally, it should be mentioned that we can weaken the conditions for conviction and acceptance analogously to the conditions for 'competent belief'. Thus, we can say that an agent feels subjectively convinced or subjectively accepts some information iff he can subjectively believe' it.

8.5 APPREHENSION, UNDERSTANDING, S-INTERPRETATION AND BELIEF

From the definitions given of belief, understanding and conviction, it should be clear that one can apprehend something without believing it or understanding it. Suddenly A notices

that B is pulling his leg, i.e. joking, but this does not mean that he has therefore understood why B is pulling his leg. B's actions do not have to make sense to him for him to notice that his leg is being pulled. This holds both for the subjective and rational variants of beliefs and understanding.

S-apprehension is apprehension of information as representatively connected with a symbol. In order to S-interpret, an agent does not have to believe that the information he apprehends is tied to something that has been intended as a symbol by anyone, i.e. if A observes a cloud formation that happens to look like a Chinese character with which he is acquainted, he can S-interpret the cloud formation as a symbol without believing that it is intended as a symbol by anyone (see section 10.6.1). Through an act of abstraction, the agent can apprehend the S-interpreted information per se and thus go from S-interpretation to pure apprehension of the S-interpreted information.⁴³

Pure apprehension can also occur in conjunction with inference. As was noted in section 8.3.3, one can draw a conclusion without believing in the factual truth of either premises or conclusion. The only thing one has to believe is that the conclusion follows from certain premises. Thus, to apprehend some information as a conclusion is merely to apprehend it as deductively related to other information. Just as with S-interpretation, an agent can then abstract from those deductive relations, and purely apprehend the information in the conclusion while disregarding its deductive relations to other information.

As we have seen, our analysis of the various types of understanding always implies some sort of belief, and belief in its turn always implies apprehension. There is thus an implicative relation between understanding, belief and apprehension. This means that we have discounted the possibility that understanding and conviction could exist without some element of conscious apprehension. This apprehension is then not pure, but part of another mental act connected with some particular emotion or attitude.

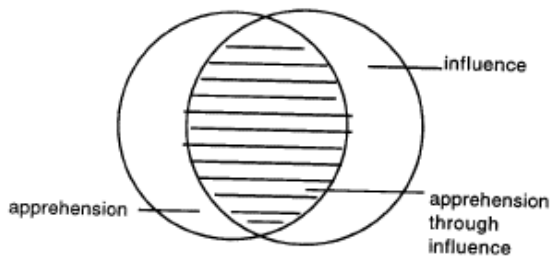
8.6 SUMMARY

Let us now, in summary, recapitulate the relations between the various aspects of the reception of information that we have considered.

The relation between influence and apprehension is intersection. Some apprehension involves being influenced, but sometimes one apprehends without being influenced (through memory, dreams etc.) and sometimes one is influenced without noticing it (Figure 4).

⁴³ If the agent believes that the symbol is intended to be communicative, we will say that he DS-interprets (see section 7.1. for an explanation) the symbol. He can also apprehend the symbol-vehicle (section 10.2.), believing it to be DS-interpretable, without actually being able to S-interpret it, e.g. looking at a Chinese character put on the wall for decoration.

Figure 4



When it comes to the three types of further reactions we have considered emotions, attitudes and behavior they often arise through some form of influence, but do not always have to. All of them can come about through apprehension, but they can also arise through direct influence. Further, emotions, attitudes and behavior can all mutually affect each other.

8.7 PRELIMINARY REMARKS ON THE RELATION BETWEEN SENDER AND RECEIVER ACTIVITY

How should one relate the different types of informational uptake to the activities of the sender, such as display? Earlier we have noticed that one can apprehend and be influenced by both indicated information and display. This seems to hold for all other manners of apprehension as well. This makes sense from the point of view of the sender since it is by virtue of some entity's being a possible indicator for the receiver that he intends to display information. It is essential in cases of deceptive display, where, to manipulate a receiver, it is further necessary that he apprehends some information as merely indicated rather than displayed. If I intend to display my stumbling to a receiver in order for him to draw certain conclusions about my eyesight and my need for social aid, I don't want him to notice that I have displayed my stumbling.

Since all the manners of apprehension depend only on the receiver, the sender's intentions are irrelevant. This holds for conviction and understanding too. Both concepts are applicable to the act of apprehension from the receiver's point of view, without taking the sender into consideration. A can be convinced of and/or understand that B is angry irrespective of whether B has intentionally displayed his anger or not. B's intentions are irrelevant in this respect.

In summary, we can say that, for the most part, it does not matter to a sender whether a receiver apprehends him as displaying or not. But there are exceptions, such as deception, where it is essential to the success of the sender's intentions that the receiver does not notice that he is being exposed to displayed action rather than nondisplayed action.

9. FULL-BLOWN COMMUNICATION

It is pretty obvious that our analysis of what it means for a sender to indicate and display information and of how a receiver can apprehend the information that has been unintentionally indicated or intentionally displayed is only a partial analysis of communication, whether it be linguistic or non-linguistic. Let us therefore continue by looking first at behavior without conventional meaning, and ask what more than an intention to display we should require from a sender in order to say that he had intended to communicate in a more full-blown sense of the term.

9.1 SCARING AS MANIPULATORY DISPLAY

Suppose that A, with a threatening look on his face, lifts his stone axe in B's direction. Since the situation is such that A would have good reason to hit B (B has stolen A's last bone of meat), B draws the conclusion that A intends to hit him. As a matter of fact, A does not intend to hit B but he intends to give B that impression through concealed display. His intention succeeds if B draws the intended conclusion and apprehends A's action as genuine (section 5.1.3), i.e. if B both apprehends his displayed manipulatory intention and does not notice that A is displaying it.

If we, among A's manipulatory intentions, include the intention that B should be brought into a state of fear or terror by inferring what action A is intending to perform, we have a good approximation of what it means to *intend to frighten* or *scare* somebody. Only the manipulatory intention is really essential to identify something as an intentional act of scaring, since it is possible to scare someone through pure manipulation involving no intention to display at all. It is the manipulatory intention which identifies an action as an attempt to scare from the sender's point of view.

As we have noted earlier, manipulatory intentions can be more or less far-reaching. E.g. in the example above, A could, besides intending to bring B into a state of fear, intend B to associate the state of fear with the circumstances that immediately precede A's actions (part of A's reasons). This association on the part of B could then be expected and intended by A to influence B's future actions and behavior in such a way that he would not repeat them.

A's expectations and intentions are reasonable since they build on the assumption that B is a typical agent who seeks pleasure and tries to avoid what is unpleasant, e.g. states of fear. The extent to which A will succeed in conveying his intentions to B will depend on the extent to which B is willing to consider the reasons and purposes of A's actions. B's chances of making the right inferences will be greater, the more A's actions conform to those of a typical normal rational agent. So, cooperation and assumptions of mutual typicality are essential to even such rudimentary communicative acts as scaring, if it is to be accomplished via conscious apprehension of information.

Manipulatory display of the type scaring exemplifies, will for the receiver exhibit the same kind of indeterminate specificity (section 2.5.1) as all other action. What can be supposed to be the main purpose identifies the action. An action which induces fear need therefore

not be regarded as an attempt to scare, if one does not think this was the main intention. The fear could serve as a means to achieve another purpose. For example, A saves B's life by shouting very loudly to induce a state of fear in him, which will make him jump out of the way of an object which is about to crush his head.

9.2 DISPLAYORS, SIGNS AND D-ASSUMPTIONS

Building on the framework developed above in chapters seven and eight for the description of the sender's and receiver's rudimentary communicative activities, I will now continue by characterizing a number of somewhat more advanced phenomena which will serve as a basis for a characterization of full-blown communication.

Let us for a moment return to scaring and assume that B suddenly infers that A does not intend to hit him on the basis of (let's say) a certain stylization in A's movements and something in A's facial gestures. Instead, B draws the conclusion that A intends to display to B that he intends to hit B. B would, under such circumstances, be viewing A's behavior as a sign, i.e. he would view A's behavior as an act of display.

The term *sign* will be used for behavioral features or other objects which are apprehended as displayors by a receiver (observer, interpreter). In analogy with the terminology introduced for displayors in 7.4.2, we will say that a *representative sign* is an indicator apprehended as a representative displayor and that a *non-representative sign* is an indicator apprehended as a non-representative displayor.

Thus, we can say that, while displayors are concrete objects intended to be apprehended as indicators, signs are indicators apprehended as displayors.

Consider the following example as an illustration of what it would take to make an indicator into a sign. A is looking at big black clouds that are gathering on the horizon and believes them to be an indicator of rain. If he were to believe them to be a sign of rain, he would have to regard them as representative displayors by which some agent (say a raingod) was intending to display rain.

Signs are therefore the receiver-oriented notion corresponding to a displayor. Acts of display and displayors are created by a sender's intentions. The receiver is irrelevant. Correspondingly, signs are created by a receiver's apprehension of an indicator as displayed which, of course, need not correspond to any actual intention to display in a sender.

It will be convenient to introduce a special designation for the receiver's assumption that something is displayed i.e. a sign. We will use the term D-assumption where *D* stands for display. D-assumptions are thus not another manner of apprehension. Rather they are the addition of a certain type of assumption to one of the already mentioned manners of apprehension. In order to indicate when an act of apprehension includes such a D-assumption, we will use the prefix D and obtain D-apprehension, D-inference and DS-interpretation as designations for manners of apprehension accompanied by D-assumption. We shall also use D-apprehension as a covering term for all manners of apprehension. We

shall see later that S-interpretation can be said to arise from *D*-apprehension in an analogous way to the way we will claim that symbols⁴⁴ arise from signs. See section 10.8.

When a sender's displayor is viewed as a sign by a receiver, we have taken an important step towards full-blown communication and have reached what I would like to call *sender display concurrent with D-apprehension*.

9.3 SIGNALS

9.3.1 SECOND ORDER DISPLAY AND SIGNALS

In order to reach *full-blown communication*, I want to claim (again perhaps somewhat stipulatively - but with an intuitive base) that the following two conditions must be met:

1. The object that is supposed to convey the information must by the sender be intended to be apprehended as a sign by the receiver, and must also be so apprehended by the receiver.
2. The information apprehended by the receiver must agree with what the sender intended should be apprehended.

The sender must, so to speak, intend to display his display. We will call such display *second order display*, to distinguish it from ordinary display. We introduce the term signal to refer to a manipulatory action which involves second order display. More precisely with the following definition:

By a *signal* will be meant a manipulatory action which is intended to make a receiver at least *D*-apprehend (through direct perception, *S*-interpretation or inference) a certain object. Signalling, thus, presupposes a greater degree of social awareness than mere display. The sender must not only consider the receiver capable of conscious apprehension. He must consider him capable of *D*-apprehension as well.

This way of defining a signal is thus completely sender-centered. No reception or interpretation of the signal is necessary for it to be a signal. Nor are signals necessarily conventional, although using a symbol as a signal would increase the chances of achieving the purpose of the signal, i.e. to have its content apprehended.

9.3.2 REFERENCE AND SIGNAL-CONTENT

Just as we distinguished between representative and non-representative display (section 7.4.1), we will distinguish between representative and non-representative signals. Iff a sender intends a receiver to *D*-apprehend a displayor as a representative indicator of some other object, he has an *intention to represent* or *representatively signal* that object, and iff

⁴⁴ For a definition of *symbol*, see section 10.2.1.

he intends the displayor to be non-representatively D-apprehended, he has an *intention to non-representatively signal* the displayor.

Using these notions, we can now define a notion of *reference*. We will say that a sender *refers* to an object iff he representatively signals that object. Propositions are abstract objects which one can refer to like all other objects. However, this definition will allow a distinction between referring to a proposition and asserting a proposition, since asserting a proposition involves expressing competent belief (section 8.4.3) in the facticity of a relation between at least two objects, while referring to a proposition does not.

Further, we will refer to the displayor used for signalling as the *signal vehicle* and the displayed content intended to be D-apprehended as the *signal-content*. Thus, signal content is really display-content intended to be D-apprehended. The D-assumption is not part of the intended signal-content, but that which makes an indicator a sign to a receiver, i.e. the second-order displayed intention to display is not part of the content; instead, it is intended to give the apprehended content a special status, namely that of the content of a sign.

Some signal vehicles are representative, i.e. they are intended to represent their content, while others are non-representative, i.e. are intended to be D-apprehended for their own sake.

Since signal-content is really D-apprehended display-content, we can for signal-content also distinguish *expressive* and *manipulatory content-quality* and *content-matter* (section 7.4.6). When we want to make clear that we are referring to a signal and not to an act of display, we will write *manipulatory signal-content quality* etc.

Further, just as acts of display can have expressive functions or be connected with manipulatory intentions that are not displayed, signals can have expressive functions or be connected with manipulatory intentions that are neither signalled nor displayed.

Thus, A can bow deeply to B in order to signal his respect for B. The intended signal-content-quality will be his feeling of respect. But this does not mean that A's behavior really expresses respect. A's signal content could be deceptive. What his behavior really expresses could be an ingratiating attitude. Similarly, the real manipulatory intentions can differ from those which are signalled, e.g. A might well intend to make B favorable towards himself, but he is not intending to signal this intention.

Signalling can also occur concurrently with acts of display. If A smiles while he bows, he might well intend his smile to display friendliness, but his bow to signal respect, i.e. he might well intend that B should D-apprehend his bow as a sign, but only intend that B should apprehend his smile, without any D-assumption, as an indicator of friendliness. Some things are more naturally displayed than signalled and vice versa.

9.3.3 SIGNALLING AND CONVENTIONAL ACTION

In section 7.5.2, we argued that first order display is likely to be more successfully accomplished with conventional than with non-conventional action. However, this does not necessarily hold for signalling. In fact, probably the opposite is true. Since the purpose of conventional action is conventionally determined, it will be hard to connect any other

purpose with the action. So, although correct eating is easy to display, it is not easy to signal, i.e. to second-order display. Such signals are perhaps easiest to imagine when, besides purpose, part of what is to be signalled are the conventional features of the action themselves and not just its purpose.

Consider the following example. A is an actor whose table manners are terrible. He has to appear in a film scene featuring well-mannered eating, but has great difficulties. So, the company instructs another man B to eat the way A is supposed to, out of the range of the camera, but within A's field of vision, so that he can mimick B. B would in this case not only be eating properly, but also signalling 'proper eating', which from B's point of view is to say that he is second order displaying 'proper eating'.

9.4 FULL-BLOWN COMMUNICATION

Using the notions of signal and sign, we can now characterize the type of communication which I believe to be typical among human beings. We will call this type of communication full-blown communication. The following conditions are claimed to be necessary and sufficient for full-blown communication.

9.4.1 A DEFINITION OF FULL-BLOWN COMMUNICATION

A sender and a receiver can be said to be engaged in full-blown communication iff

1. the sender's signal is D-apprehended by the receiver
2. the sender's signal content agrees with the content D-apprehended by the receiver.

What we have earlier called 'sender display concurrent with D-apprehension' fails to qualify as full-blown qualification, since the sender does not regard his display as a signal, i.e. does not intend his displayed content to be D-apprehended by the receiver.

Another way of characterizing full-blown communication would be to say that it involves:

1. *second order display* on the part of the sender (intention to display an act of display and its content)
2. apprehension of a behavioral feature or object as a display of some content by the receiver, and
3. a correspondence between sender intention and receiver apprehension as to what information is being displayed and apprehended.

Over and above full-blown communication, the sender and the receiver can increase their mutual consciousness and possibilities of conveying information through the receiver's apprehension of the sender's intention to signal and then drawing certain conclusions about this. Further, the sender can intend precisely this, i.e. that the receiver should draw certain conclusions in virtue of having noticed that the sender intended to communicate with him. As far as I can see, sender and receiver could normally, in this way, step by step increase the subtlety of their communication ad infinitum, subject of course to the limitations on

human processing ability mentioned in section 5.2.3. The sender intends the receiver to notice that the sender intends the receiver to notice that the sender intends the receiver to notice that the sender intends to communicate a certain piece of information to the receiver etc.. However, in order to reach full-blown communication, no more is required than that the sender's signal is apprehended as a sign by a receiver.⁴⁵

9.4.2 GRICE'S NOTION OF 'MEANING_{NN}'

Besides owing a great debt to G.H. Mead 1934 for his account of how agents reflexively take each other's attitudes and roles in social interaction, my analysis of signalling and full-blown communication also owes a lot to H.P. Grice's analysis of 'non-natural meaning' ('meaning_{NN}') proposed by Grice 1971:257. Grice defines 'non-naturally means' (= 'a means_{NN}') the following way:

"A meant_{NN} something by X" is (roughly) equivalent to "A intended the utterance of X to produce some effect in an audience by means of the recognition of this intention"; ...'

My main objection to Grice's analysis is that it conflates several distinct notions into one meaning_{NN}.⁴⁶ First, Grice does not make the distinction between conventional content (see 10.4.2 below) and intended signal-content. The intended signal content does not have to be identical to the conventional meaning of an utterance (section 10.5). In fact, it often is not.

Second, Grice does not distinguish the intention to second-order display, i.e. the intention to signal from what is signalled, i.e. the signal content.

Third, Grice in his choice of examples and the term 'non-natural meaning' seems to have overlooked that if meaning is not conventional, contrary to Grice's view, it is precisely by virtue of the sender's and receiver's mutual cognitive and ethical presuppositions about naturalness, normality and rationality that a sender reasonably can expect to signal anything at all to a receiver. Signalling presupposes indication or convention or in Grice's terms: non natural meaning presupposes natural meaning or conventional meaning. In normal conversation, usually both natural and conventional meaning are presupposed.

Fourth, Grice's account of what is required of the receiver for the sender to have successfully meant something_{NN} has the unfortunate consequence that if A utters a sentence S to B intending to make him believe the proposition p and B recognizes his intention but does not believe him, A's intentions to mean_{NN} p by S would have been frustrated. This, of course, is counterintuitive since it is perfectly consistent with our normal notion of communication that signals are D apprehended but not believed. For successful signalling, D-apprehension is sufficient.

⁴⁵ An amusing example of such reflexive assumptions is brought out in the following quote from the poem *The Kiss* by Coventry Patmore (Penguin Book of Love Poetry, Penguin 1976, 106):

He thought me asleep; at least I knew
He thought I thought he thought I slept

⁴⁶ For similar criticism within a slightly different framework, see Wetterström 1975, 115-130.

Finally, Grice's analysis has the consequence that certain cooperative requirements of ethical consideration are not met (see chapter 11), since he does not distinguish signalling the purpose of which is D-apprehension of signal-content from the further manipulatory intentions (like belief) a sender might have, and thus does not provide room for the receiver's own evaluation of the status of the signal-content.

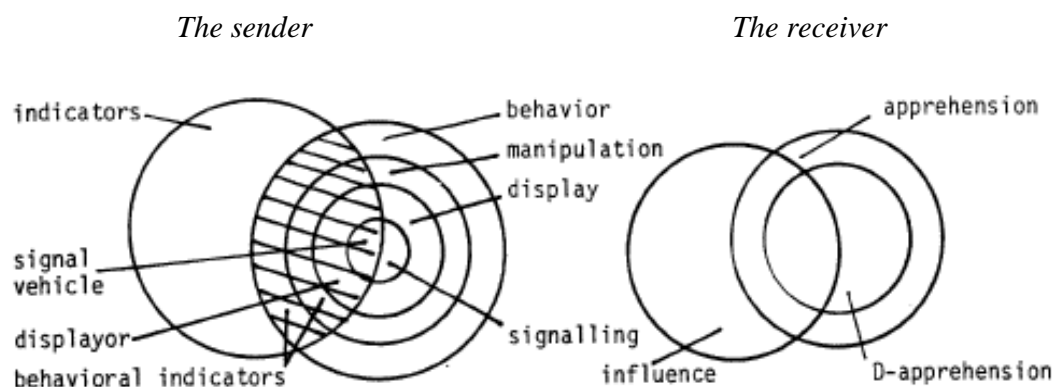
However, it would be a mistake to say, like Searle 1969:47 that communication aims only at D-apprehension (his notion of understanding is roughly equivalent to my DS-interpretation). Grice is right in saying that it can be connected with many other manipulatory purposes. The point is that these do not need to be achieved for successful full-blown communication. Their achievement is necessary for the success of the various other purposes that are concurrent with communication. (See chapter 14 on communicative acts).

9.5 COMMUNICATIVE ACTIVITIES AND ENTITIES

I will now try to summarize how the communicatively relevant activities and objects which we have just defined are related internally and to each other

Figure 5a

Figure 5b



The sender activities remain the same as in figure 3 except for the addition of signalling. As far as the receiver's activities go, the only change with respect to figure 4 is the addition of D-apprehension. Signalling is properly included in display since it is a type of display - second order display. D-apprehension is properly included in apprehension for similar reasons. Apprehension and D-apprehension intersect with influence since they can arise through external influence, but also internally through memory, imagination or intuition. Apprehension and influence also interact with emotions, attitudes and behavior (not indicated in figure 5b), since they can give rise to all of them, but do not necessarily give rise to any of them. Emotions, attitudes and behavior can occur independently of both apprehension in general and influence. Further D-assumptions intersect with the three manners of apprehension (not indicated in 5b), since any of them can give rise to D-assumptions, but none of them necessarily do.

Conviction, belief and understanding arise through apprehension. The only thing that has changed is that we can note that, besides arising directly from apprehension, they can now arise via D-apprehension.

We will now let the sender diagram intersect with the receiver diagram in order to see more clearly the relation between communicative objects and activities. Only those activities will be included that are relevant for defining the objects, i.e. apprehension and D-apprehension, on behalf of the receiver, and all the activities except manipulation, on behalf of the sender.

Figure 6 Sender and receiver-activities and objects

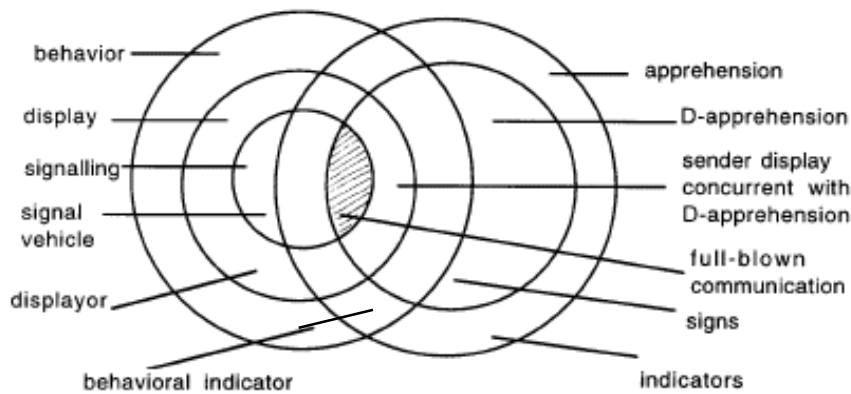
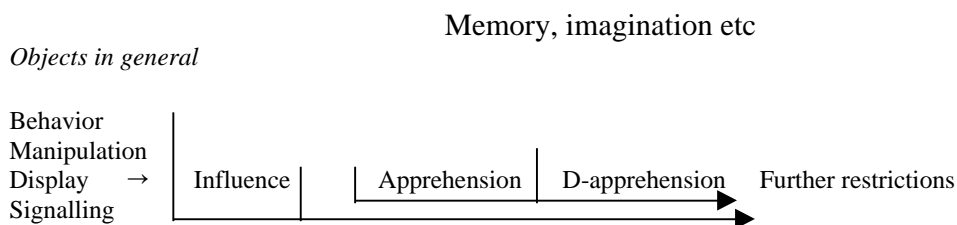


Figure 6 shows relatively clearly the relation between communicative activities as processes and reifications: behavior-behavioral indicator, display-displayor, signalling-signal vehicle and apprehension-indicator, D-apprehension-sign. Full-blown communication falls in the intersection (shaded area) of signalling and D-apprehension, i.e. a signal being apprehended as a sign.

Next, we will try to give an idea of the relation between the actual activities of the sender and the receiver. However, if we are to retain some perspicuity, the total picture cannot be given at once. We must present an overview. This is done in figure 7. The arrows here represent direction of influence.

Figure 7 Sender-receiver influence



Any indicator or sender activity can influence the receiver. Some is apprehended, some is not. Out of that which is apprehended, some is D-apprehended. Emotional, attitudinal and behavioral reactions can be evoked by apprehension and D-apprehension, but can also be

evoked directly by the sender's activities. Apprehension, D-apprehension and further reactions can also take place independently of external influence. This is indicated by the arrows above the last three boxes.

As regards the more detailed breakdown according to manner of apprehension: All types of apprehension and inference can take place on the basis of any indicator or sender activity. S-interpretation is only relevant if the sender is manipulating symbols with conventional meaning. D-assumptions can also be based on any indicator or sender activity, since it differs from other manners of apprehension only by the addition of an assumption about the sender's intention to display. This assumption is correct if the sender is signalling, but incorrect otherwise. Usually, D-assumptions, even if mistaken, are limited to human behavior or possibly to the behavior of computers or higher primates. But they can, of course, especially if one is an animist of some sort, be directed toward any natural indicator (black clouds as sign of the rain god). One can sometimes observe D-assumptions of this sort with small children.

9.6 DISPLAY, SIGNAL AND SOCIAL SELF-CONSCIOUSNESS

If we want an explanation of why it is possible for A to intend that B should draw certain conclusions about the nature of A's behavior and why B, in fact, often draws these conclusions, we must again look at the ontogenesis of self-consciousness. The individual projects the ties he has established between his own behavior and intentions on other individuals whilst taking their corrections into account, and thereby learns the meaning of their behavior. He further projects his own ability to project on others (again taking their corrections into account) and thereby acquires a social self-consciousness (an idea of how others experience him).

Since both A and B can be taken to have acquired a social self-consciousness of this type, and since they probably both assume that the other has done so as well, A can assume that B will be able to apprehend the meaning of his behavior. This assumption is particularly plausible when there is a natural, rational or conventional tie between meaning and behavior, since this is the type of tie that A has a right to assume that B at some point in time should have encountered and become conscious of.

As an example, consider how threatening and scaring are dependent on mutual cognitive consideration. The tie between being subjected to an action one does not like and the will to take revenge and/or at least, to see to it that one is not subjected to that type of action once more, is such a natural and rational tie. Just as there is a natural tie for the typical agent between desires, needs and wants, and behavior that satisfies these and thereby gives rise to feelings of pleasure, there is also, for the typical agent, a natural tie between horror, fear and discomfort and behavior that is intended to reduce or to make such states disappear, in order to minimize displeasure. Thus there is a natural tie between a will to take revenge, a desire to prevent the repetition of an unpleasant action and scaring somebody. To intend to scare somebody is to intend to bring someone into a state of fear. Since fear is unpleasant and taking revenge means subjecting somebody to evil for some evil one has oneself suffered, one can take revenge by scaring somebody. Since one does not usually subject anybody to something bad without reason and since most people seem to want to avoid discomfort and unpleasantness, a receiver who thinks that someone is trying to scare him will naturally be led to look for some reason why that person should

want to bring him into a state of fear. A natural such reason is revenge. If the individual D-infers that he is being threatened and not merely scared, he will instead be led to look for some reason why the scaring behavior is displayed rather than used directly to scare him. One such reason is that his attention will then be directed both to the sender's reasons for scaring him and to the effects on him the sender can be supposed to want to achieve in virtue of the effects he would have achieved if he had scared him, i.e. got him to avoid or engage in some particular activity in order to avoid fear. Thus, the change that occurs when B start to apprehend A's action as displayed rather than as directly manipulatory will at the same time increase the amount of information A can convey to B and tear it loose from the information that A could reasonably have expected B to apprehend if B just had felt scared, i.e. not made any D-assumptions.

Thus, the social consciousness of both sender and receiver in combination with their reciprocal consideration of each other's social consciousness and typicality, makes it possible for the sender to intend, with some plausibility, that the receiver should be able to apprehend both the reasons for and the meaning of the sender's behavior. The fact that receivers, in spite of all the uncertainty and indeterminate factors inherent in ordinary interactive situations, often actually manage to accomplish this, is at least not inconsistent with our claims about the role of social consciousness in chapter 4.

10 CONVENTIONALIZATION

Conventions play, in one way or another, an essential role in communication. We shall therefore in this chapter consider some of the ways in which the analysis presented so far is affected by conventionalization.

10.1 CONVENTIONALIZED DISPLAY

Display is a sender-oriented concept whose definition relies solely on the sender's intentions. Conventionalization entails that a belief, attitude or disposition comes to be generally shared in a community. Therefore, if by convention some behavioral feature or object were to become a display, its communicative status would no longer be tied only to the sender's intentions, since it would then be difficult for any normal observer to regard it as an indicator. He would have to regard it as a sign and the behavior would have met the receiver part of the first requirement on full-blown communication, viz. that the behavior be regarded as displayed. The other requirement, viz. that sender and receiver information correspond, is also facilitated by conventionalization, as we shall see.

Information conveyed by a signal must, in non-conventional cases, have an indirect natural, normal or in some sense rational tie with the signalling vehicle. Conventionalization takes away the necessity for this kind of tie. The tie need no longer be natural or rational, it can be more or less arbitrary. This arbitrariness does not stand in opposition to the main purpose of communication - transfer of information. On the contrary, it can help to solve one of the key problems of communication, viz. finding a behavioral feature or other entity which would ensure that a receiver would D-apprehend a certain content.

There is always a certain amount of uncertainty involved in getting a receiver to reconstruct the information intended by inference via natural, normal rational connections. The receiver could draw quite different conclusions than the sender had intended. From a communicative point of view, uncertainty could therefore be reduced for the communicators if the content intended to be communicated could be connected to the signal-vehicle used by more than mere plausibility. The possibilities of achieving this will increase, the more difficult it is to regard the signal-vehicle as a natural action in its own right.

For man, speech is a type of behavior of this kind, which further has the advantage of making possible a great range of both motor and perceptual variation. This in turn means that the quantity of information that can be transferred safely by speech can become relatively large.

Thus, human natural language, as one of its essential characteristics, exhibits conventionalization of an arbitrary tie between a certain content and a sequence of sounds which could only with great difficulty be experienced as a natural action in its own right.⁴⁷

⁴⁷ See also footnote 18.

So, when display of content is conventionally tied to behavior, a sender is more or less guaranteed successful communication. He merely has to choose behavior the conventionally displayed content of which is identical to the information which he wants to communicate, and then signal the conventionally displayed content. The last proviso is necessary since one can imagine behavior with conventionally displayed content being manifested without any intention to display or signal (see section 10.6). Imagine A rapidly repeating words to learn them by heart and B listening and S-interpreting the meaning. A's words would, by convention, in this case, be indicative of their content, but A would not be intending to signal that content. If A uses behavior with conventional content and both A and the receiver are members of the community in which the content is connected by convention to A's behavior, communication will very likely take place.

While in communication without conventional content, the information sent and received is totally dependent on individual senders and receivers, conventionalization introduces a new factor - units of behavior or other objects the meaning of which is relatively independent of particular sender-receiver constellations. Symbols come into the picture as a social fact on a par with the intentions of senders and the apprehension of receivers.

10.2 SYMBOLS

10.2.1 A DEFINITION OF SYMBOL

I will call a behavioral feature or any other object which by convention is a representative display of content - a *symbol vehicle*. The symbol vehicle together with its conventional content will be referred to as a *symbol*. Since a sign is a behavioral feature or other object apprehended as a display by a receiver, we can also say that symbols are conventional signs. Further, I will use the term *verbal* for symbols that are *vocalic*, i.e. sounds produced orally by a human being, and *gestural symbols* for gestures which are conventional displays of meaning.

Thus, while non-conventional signs are dependent on being apprehended as displays by particular interpreters and are not tied to any particular community of interpreters, symbols are tied to a certain community of interpreters rather than to any of the particular interpreters within that community.

So we see that our indicator concept fairly well corresponds to the sign concept explicated within North American Semiotics by Peirce and Morris, where everything that can be apprehended can be a sign. Our symbol concept, on the other hand, corresponds to the sign concept explicated by the European tradition following Saussure. Our sign concept, finally, corresponds to neither of the two traditions.

As we shall see, conventions that create symbols can function both 'regulatively' and 'constitutively' and descriptions of these conventions can function both 'prescriptively' and 'descriptively', which is exactly what one should expect given our previous discussion in chapter 3.

All symbols are *representative*. They are not displays for their own sake, but for the sake of some information which they represent. See section 7.1. Using earlier terminology, they

are behavioral features or objects conventionally apprehended as representative signs. It is the representative nature of symbols which makes them so clearly conventional. No other connection between symbol vehicle and symbol content is required than an arbitrary convention. It is by virtue of such a connection that symbols represent.

10.2.2 CONVENTIONAL CORRECTNESS

Symbols are conventional in at least three important respects:

1. The connection between symbol vehicle and represented content is conventional.
2. The manner in which symbolic behavior is to be performed is regulated by convention.
3. The connection between the occurrence of symbolic behavior and the contexts in which it occurs is sometimes conventional.

In all these three respects, there are standards of *conventional correctness*. One could perhaps claim that the traditional study of grammar has concerned the first two respects, which in my framework could be phrased in the following way: the traditional study of grammar concerns the restrictions that exist concerning the connection between the purposive plan of a communicative act and the instrumental plan for its behavioral realization. Traditionally, such restrictions have been studied under headings such as phonology, lexicology, morphology and syntax, bringing out various aspects of the behavioral realization both of a symbolic unit in isolation and in combination with other symbolic units. (Since my present concern is to investigate the pragmatic aspects of communication, I am here consciously choosing the unspecified notion symbolic unit to stand for any of the more renowned linguistic units such as morpheme, word, phrase, sentence etc.).

The third aspect of conventional correctness - *conventionally determined contextual appropriateness* - has not been noticed to any great extent in traditional grammar. This type of conventional correctness is most clearly noticeable with so called institutionalized performatives (see section 14.4.8) i.e. the symbolic behavior that takes place in highly institutionalized ritualistic types of communication such as legal proceedings or religious ceremonies. Here, certain words and sentences can only be uttered by certain very specific persons in very specific situations if they are to be correctly used.

10.2.3 CONVENTIONAL FORCE

Very closely connected with institutionalized performatives is the notion of conventional force. The use of a symbol is connected with *conventional force* to the extent to which it commits either the individual using it, or the social institution he represents, to a certain set of social consequences. Often, this commitment is reinforced by a set of social sanctions guaranteeing that those social consequences will actually obtain.

For instance, the formula used in baptism has conventional force since its employment in a conventionally appropriate context has the social consequence of making an individual a member of a religious community. The words uttered by the chairman of a business

meeting or a debate to open proceedings has the social consequence of making a certain type of social interaction possible. A very special type of conventional force is that which is legally codified. Here, we could talk of legal force. There are a number of verbal utterances, which if occurring in certain conventionally specified contexts will be reinforced by legally codified social sanctions. Examples of utterances which in Western society have been legally institutionalized are declarations of war and peace, appointments, bids at auctions, legal sentences, oaths, governmental decrees and military commands.

However, as was pointed out in section 3.2, the degree of institutionalization can vary from convention to convention. Accordingly, we also find that the conventional force of symbols varies from symbol to symbol. On the one extreme, we have symbolic behavior connected with legal force and strong social sanctions and on the other we have symbolic behavior connected with relatively weak conventional force and relatively subtle social sanctions.

Since it is not so easy to tie social conventions to non-observable mental events, conventional force is usually tied to externally observable behavior. This has the consequence that certain types of external behavior are committing even if they are not connected with the actual intentions and motives that should normally accompany the conventional function of the behavior; i.e. the fact that I promise insincerely does not mean that I have not been committed to certain future actions by my promise. What has just been said holds for most actual intentions and motives that usually accompany behavior with conventional force, but possibly not for all such intentions. Consider, for example, the intention to promise. It seems doubtful if an agent who exhibits behavior which by convention is connected with making a promise, without intending his behavior to have the conventional force of a promise, can be said to have made a promise. Thus, in many cases, it seems that the conventional force must at least be connected with the intention that the behavior have the force in question.

A particularly amusing example of conventional force is furnished by the 19th century habit of insulting in German student circles. It seems to have been possible during that period to insult somebody successfully by merely uttering the words *I insult you*. If the receiver apprehended the insult, he would then be insulted, whether he felt genuinely insulted or not. The example is interesting since it shows how a sender can commit not only himself but also a receiver through the conventional force of a symbol. This is, of course, possible only given that being insulted has certain social consequences, such as being obliged to take part in a duel etc.

10.3 CONVENTIONAL CONTENT

10.3.1 MODE, MOOD, CONVENTIONAL CONTENT-MATTER AND CONVENTIONAL CONTENT-QUALITY

In section 7.4.4, we distinguished between the expressive function and the manipulatory intention of an act of display. The same distinction can be drawn for signals. It is important to note that the expressive function or manipulatory intention of a signal does not have to be identical to the signalled expressive content-quality or signalled manipulatory content of a signal.

(17) It is raining.

(18) I believe it is raining.

The expressive function of (17) (taken as a statement) is the expression of belief. This holds also for (18). But (18) also has belief as explicitly signalled expressive content-quality. I will use the term *mode* to refer to an expressive function which by convention is tied to a certain type of behavior, i.e. the mode of the behavior is its conventional expressive function. Thus (17) and (18) have the same mode but (18) in addition to (17) has a conventionally-signalled content-quality which is of the same type as its expressive function. Besides *mode* I will also introduce the term *mood* for a manipulatory intention which by convention is tied to a certain type of behavior.

(19) Run

The mood of (19) is the general manipulatory function which is codified by its imperative form. The imperative can in fact be claimed to be the most general mood. It only signifies intention to manipulate, whether what is manipulated be emotion, attitude or behavior. It is the content-matter (section 7.4.5) simultaneously connected with the mood indicator which specifies what particular receiver reaction is supposed to be evoked. In this case, the content-matter specifies it as running activity.

We will refer to all information which by convention is carried by a symbol as its *conventional content*. Both mode and mood are features of the conventional content. But also what we have earlier called *content-matter* and *content-quality* can be features of the conventional content. They can both, besides being connected with unconventional acts of display and signals, become connected with symbols and thus become part of what a receiver who has internalized the conventions of a certain community should be able to S-interpret in being exposed to a certain symbol. Mode, mood, conventional content-matter and content-quality are thus four relatively abstract aspects of an already abstract object - the conventional content. The four aspects can be simultaneous features of the conventional content of a symbol but do not need to be.⁴⁸

10.3.2 THE TRADITIONAL CATEGORY OF MOOD

The distinction between *mode* and *mood* can perhaps shed some light on the traditional category of *mood*. This term has been used in many ways, traditionally. It has been connected with the ontic modalities of necessity, contingency and possibility but perhaps more commonly with various epistemic modalities. One of the clearest exponents of this latter view is Jespersen 1924, who defines mood in the following way (p.313):

⁴⁸ The distinctions drawn here are reminiscent of the distinctions drawn in Hare 1970 between 'phrastic', 'neustic', and 'tropic'. The 'phrastic' corresponds roughly to what Searle 1969, 24, calls propositional content and to what I call conventional content-matter. The 'neustic' refers to the way a speaker subscribes to whatever is expressed by the phrastic component, thus corresponding roughly to my expressive function. Finally the 'tropic' expresses the mood of a sentence. This corresponds to nothing in my framework, since this is the notion I am concerned to analyze. 'Tropic' could also be said to be based on the speech act notion, in which case it is subject to the same type of criticism of this approach that is offered below.

'..we speak of "mood" only if /an/(my insertion) attitude of mind is shown in the form of the verb: mood thus is a syntactic, not a notional category'.

Mood is thus the conventional codification of an epistemic notion - an attitude of mind, which comes very close to what we have termed mode, i.e. the conventional codification of an expressive function. However, if we read a few more lines, it turns out that Jespersen's notion of mood is really a mixture of our concepts of mood and mode (p.313):

'/The imperative/(my insertion) is a will-mood in so far as its chief use is to express the will of the speaker, though only - and this is very important - in so far as it is meant to influence the behavior of the hearer...'

Thus, although Jespersen's concept of mood, unlike that of many authors before him, has the virtue of not confusing a notional with a conventional syntactic classification, it can perhaps be improved by bringing out an important distinction inherent in the notional side of his concept of mood.

There are also other attempts to analyse the concept of mood. One common type involves the notion of utterance types or more recently speech acts, e.g. Andersson 1975, 101.

'Here, I will consider sentences as representing certain moods only when the specific syntactic characteristics of the sentence are associated with a certain type of speech act'.

I do not think this approach is to be preferred over Jespersen's, for the following reasons:

1. It is very unclear what a speech act is.
2. If there is a coherent notion of this type, it seems very probable that it has to be analyzed in terms of the more primitive notions of expressed psychological state and manipulatory intention (see chapters 7 and 14), which, in fact, are the notions Jespersen is employing.
3. The notion of speech act suffers from exactly the type of conceptual ambiguity that Jespersen wanted to get rid of, i.e. it is unclear whether it refers to a conventional type of symbol or to a certain type of communicative activity, regardless of whether that type is conventional or not.

Consider sentence (20).

(20) you will come tonight.

(20) can be used as a statement, a question, or an order.

Which speech act is supposed to be associated with the specific syntactic characteristics that constitute the mood?

Thus, with the amendment proposed earlier I suggest that Jespersen's way of analyzing phenomena connected with what he called *mood* should be retained. Let us now consider the relationship between some of the phenomena that traditionally have been counted as categories of mood and my concepts of mood and mode. My claim is that traditional mood-

markers (verbal affixes and structural features of sentences) are portmanteau phenomena codifying both expressive function and manipulatory intention. Consider the following

(21)

		EXPRESSIVE FUNCTION				
		belief	hope	wonder	wish	strong occurrence of emotion or attitude
object of manipulatory intention	belief	DECLARATIVE	OPTATIVE			
	verbal reply		R	INTEROGATIVE		
	anything				IMPERATIVE	
	nothing					EXCLAMATIVE ⁴⁹

In this matrix, I have included most traditional moods except the subjective, which I think notionally is not as purely epistemic as the other moods. As we can see, all of the categories except the exclamative have both mode and mood features. The exclamative is purely a mode. I think the matrix is useful in what it shows that traditional mood categories involve systematically, at least two conceptual dimensions - expressive function, and manipulatory intention.

Besides being conventionally expressed, manipulatory intentions and motivational psychological states can be representatively symbolized. E.g. the word *command* represents a certain pairing of a motivational psychological state with a manipulatory intention, where these two factors do not need to be conventionally codified in mood and mode indicators. The word *command* can be used about a sentence like (22) below even though the sentence contains no overt imperative mood/mode indicator.

(22) You will close the door!

It is sufficient that the sentence could reasonably, for some sender, be associated with the appropriate pair of psychological attitude and manipulatory intention. Thus, we here have an illustration of the difference between a mood/mode indicator which conventionally expresses an intention, attitude or emotion and a word like *command* which by convention represents a certain pairing of a motivational psychological state and a manipulatory intention. The word *command* will therefore designate both behavior which unconventionally exhibits such a pairing, and behavior which conventionally does.

Thus, both mood/mode indicators and verbs designating communicative acts like *command* can be analyzed within one and the same framework of communicative acts. In fact in chapter 14, we will attempt to show how most communicative activity verbs can be regarded as constituting a semantic field analyzable along the dimensions we have suggested are involved in communicative acts. It will then become apparent how an analysis of communicative acts can be used as a unifying framework for analyses of mode, mood, sentence type and speech acts.

⁴⁹ The category of exclamative is recognized by Quirk et al. 1972, 406 ff., for English and by Andersson 1975, 104 ff. for Swedish.

10.4 SOME FURTHER EFFECTS OF CONVENTIONALIZATION

As has already been remarked, conventionalization tears the function of behavior loose from actual intentions and purposes. Conventional behavior has a status of its own, to some extent independent of the actual intentions of particular individuals.

10.4.1 SOLILOQUY

One consequence of the above is that symbols can be used non-communicatively. By virtue of their conventional content, symbols can be used by an individual in isolation to express and clarify his own thought. Conventionalization of content makes it possible for an individual to externalize large amounts of information stored in his long-term memory in order to get an overview of some problem with which he is concerned. Without conventionalization, this would be difficult since the individual would then have to rely on his short-term memory to a much greater extent.⁵⁰ The role of symbols in externalization manifests itself most clearly in connection with writing, records or tape-recordings, but I think that they also play, to some extent, an organizing role in the thought processes themselves. For example, imagine doing mental arithmetic without any numerical symbols.

It might, of course, be argued that soliloquy is really a special form of communication, i.e. communication with oneself. I think this is essentially correct, but soliloquy is still so limited in its communicative functions that it must be regarded as an abstraction from ordinary symbolic communication between two separate individuals; e.g. I don't think any symbols used in soliloquy have conventional force, i.e. they are not socially committing.

10.4.2 INTENDED COMMUNICATIVE CONTENT, CONVENTIONAL CONTENT AND APPREHENDED CONTENT.

In section 7.4.7, we noted the possible discrepancies between a sender's intended display-content and the content apprehended by a receiver or an observer. Conventionalization confounds the picture even further. We now have conventional content as a fourth factor besides the three previous ones.

No aspect of the conventional content of a symbol used by a particular sender, i.e. its mode, mood, content-matter or content-quality need be identical with what a sender actually intends to communicate or to what a receiver or observer actually apprehends. A receiver can e.g. perfectly well S-interpret some sequence of symbols without DS-interpreting them, i.e. without regarding their conventional content as identical with what a

⁵⁰ It should be noted that even if I am claiming that soliloquy is dependent on conventionalization, I am not therefore automatically claiming that so called 'private languages' are impossible. To do this I would have to show that a single individual could not establish a system of conventional symbols on his own. Personally, I think the establishment of such a system by a single individual is logically possible but empirically implausible.

This claim as it stands is obviously false, since my definition of convention always involves consensus among a group of individuals. If we, however, extended the definition somewhat to allow for beliefs or dispositions to beliefs connected with the possibility of choice present in one individual over a set of points in time, I think the claim is correct.

sender wishes to communicate. Further, he can DS-interpret a symbol without reacting in accordance with the manipulatory intentions expressed through the mood of the symbol. Upon DS-interpreting the command *run!*, for example, he does not have to run. DS-interpretation does not entail more than apprehension of conventional content tied to an assumption of actual sender display.

In order to clarify the various types of content, I will now introduce the following terminology. For the content a sender intends to signal or display we will use the terms *sender content* or *intended content*. For the content tied to a symbol by convention, we will use the terms *conventional content* or *symbol content*. For the content a receiver actually ties to a sign, we will use *apprehended significance* or *apprehended content*. If the sender content corresponds to the conventional content the receiver only needs to DS-interpret in order to apprehend the sender content and the apprehended significance will be identical with the S-interpretation. Further, the content an outside observer believes has been conveyed from the sender will be called *observer interpretation*. As before, the observer's interpretation can be viewed as a special case of apprehended significance. A receiver is always also an observer. The observer is here introduced to serve as a general representative of the third party in communicative interchange, and will be referred to when required.

We shall also, when necessary, relativize the terminology here introduced to the four aspects of content we have been concerned with:

1. *Sender*: actual expressive function, actual manipulatory intention, intended content-quality and intended content-matter.
2. *Conventional content*: mode, mood, conventional content-quality and conventional content-matter.
3. *Receiver*: (apprehended) expressive function, manipulatory intention, content-quality and content-matter.
4. *Observer*: Same as for receiver.

Further, we could also distinguish between the sender's and the receiver's interpretation of the conventional content, i.e. their respective S-interpretations.

In ordinary language, the discrepancy between conventional content and intended or apprehended content is often brought out by such phrases as *Did he mean what he said?* ('Was his intended content identical to the conventional content of his signal?') or *What did he mean?* ('What was his intended signal-content?'). The term *mean* is here used for the content aspect of the total action meaning. But there is a zone of vagueness and *mean* can therefore be used to indicate successively larger parts of the total action meaning. Consider e.g. (23).

(23) In saying *I am hungry*, what he really meant was for me to make dinner.

In (23), *mean* is taken to include all the manipulatory intentions the sender might have had in uttering *I am hungry* and not just the content he can be assumed to have intended to signal.

Since we have four types of content (sender, conventional, receiver and observer) and four aspects of content, there are 16 possibilities of variation. In example (24) below, I will discuss four of these.

(24) It's cold in here.

Let's imagine the following context for (24). A is accompanying B who is a real estate agent trying to help A to buy a house, to view a house owned by C. The house has no central heating and A has told B that he does not want the house, if it is too cold. However, this has been forgotten by B. Sentence (24) is uttered by A to B in a big room with an open window while C is watching. The conventional content of (24) is clear. It is a statement about the internal meteorological situation. But A does not intend it to be taken this way by B. On the basis of what he has told B, he wants B to draw the conclusion that he does not want the house. This is the intended content. B, however, has forgotten and draws the conclusion that A, because of natural ties between body temperature and meteorology, is saying that he feels cold (the apprehended significance). So, he answers 'I feel cold too'. Finally, C, being the host, interprets A's utterance a little differently. He thinks that A's utterance, because of natural connections between body temperature, meteorological conditions, discomfort, politeness and open windows, is an indirect request for the window to be closed (the observer's interpretation). Thus we can see that the sender, receiver and observer content can not only differ from conventional content but can also differ from each other.

But not all communication involves this type of complication. Sometimes senders mean exactly what they say and are also so apprehended by receivers. We will say that communication is *conventional* if the conventional content of the symbols used corresponds both to the actual signal-content intended by the sender and to the content DS-apprehended by the receiver.

10.5 MORE REGARDING THE CORRESPONDENCE BETWEEN INTENDED CONTENT, CONVENTIONAL CONTENT AND APPREHENDED SIGNIFICANCE

10.5.1 BREAK OF THE TIE BETWEEN INTENTION, CONVENTION AND APPREHENSION

We have seen that when the tie between a certain type of behavior and a content has become conventionalized, i.e. become a symbol, one can in a relatively reliable way signal one's intentions. However, the conventionalization also means that the natural tie we have found to obtain for actions, between the sender's actual meaning or intention, and the behavior he exhibits, can be broken. It is possible to exhibit behavior with conventional content without intending to signal that content. Even though head shaking normally indicates denial, A can shake his head without intending to deny.

Taking the perspective of an observer, we shall now consider the relationship between sender, receiver and conventional content.

10.5.2 SENDER INTENTION AND CONVENTIONAL CONTENT

Sender intention and conventional content can be completely unrelated. A is shaking his head because he has a stiff neck, rather than to deny something. If the receiver apprehends A's actual intention, he will be able to see that the conventional content is irrelevant. This would hold even if the situation were such as to strongly favor the conventional content. Suppose A asks B if he wants ice cream and B shakes his head. To make sure, A asks: 'So, you don't want ice cream?', whereupon B answers: 'Sure, I just had a stiff neck'. In spite of the fact that B here has exhibited a type of behavior which in the given context has a clear conventional content, the signalling of his actual intention makes the conventional content irrelevant. Of course, A's ability to apprehend B's actual intention as an alternative to the conventional content of B's behavior is dependent on the extent to which A can see a natural and plausible tie between B's actual intention (to get rid of the stiffness in his neck) and his behavior (head shaking). If A cannot find some such tie, B's behavior will be incomprehensible.

B's head shaking in the given situation has a kind of quasi-ambiguous character. I use the prefix *quasi* since the example does not involve two conventional contents or two actually signalled contents but rather a conflict between a conventional content and an actual sender content. Since head shaking can easily be identified as an independent behavioral entity without its conventional meaning, it is not too difficult to find some other intention which could be naturally tied to it as an alternative to its conventional content. We therefore have a kind of ambiguity with respect to conventional content and an unspecified set of possible alternative natural intentions, or more briefly, two different kinds of action happen to coincide: head shaking as a conventional communicative action and head shaking as a non-conventional action.

Further, since B is not denying anything, it is really only the observer who is aware that B's behavior has conventional meaning. Thus, B's behavior only seems quasi-ambiguous to the observer.

10.5.3 INTENDED CONTENT AND APPREHENDED SIGNIFICANCE AS FUNCTIONS OF CONVENTIONAL CONTENT

As we have seen, actual intended content and conventional content need not be identical. But even if they are not identical, they are often related in the following way:

A sender uses symbols the conventional content of which he wants to convey, and the conventional content is then DS-interpreted by a receiver. However, very often, the conventional content does not directly convey the sender's intentions. Instead, the content the sender wants the receiver to D-apprehend could be looked upon as the *value of a function* whose arguments include the conventional content but also large amounts of other shared and presupposed background knowledge. The sender can intend the receiver to not only S-interpret his verbal symbols, but to use the S-interpretation as a basis for inferring the content he is supposed to D-apprehend.

Thus, the conventional content is both intended by the sender and used by the receiver as one of the factors determining the information that the receiver apprehends. General features of social consciousness and competence make possible a lack of fit between conventional content and sender's and receiver's content, which in turn radically enlarges the possibilities for the sender and receiver to convey and receive information. Sending and receiving information can for example be combined with other intentions and purposes such as politeness, consideration and the need for social togetherness. A can, instead of abruptly telling B to open the window, say: 'It's pretty cold in here' and count on B's drawing the conclusion that he wants the window closed on the basis of what he can assume B to believe about politeness, consideration, chill, unpleasantness and cold airstreams.

10.5.4 INDIRECT SPEECH ACTS

So-called indirect speech acts are an example of this phenomenon. A and B take turns doing dishes, but B always tries to get out of doing his share. A utters (25) to B, whose turn it is to wash up, just as B is about to leave the house for the night, as usual trying to avoid his turn.

(25) The dishes are not done yet.

In view of the convention A and B have for dish washing and B's tendencies when it comes to doing his share, B can be expected to take A's utterance as a request even though it is conventionally a statement. He infers the intended manipulatory intention on the basis of the conventional content of (25) and his background knowledge of the situation.

10.5.5 IRONY

Irony furnishes us with another example of how intended and apprehended content can be related to conventional content and background assumptions. Suppose that A says to B, about a man that B well knows has ruined A and seduced A's wife: *He is an extraordinarily good friend*. And that B then on the basis of background knowledge and S-Interpretation arrives at a D-apprehension of the intended content of the following nature: *He is an extraordinarily evil enemy*, and that this was intended by A.

Now should we describe the structure of A's intentions in this case? For one thing, A intends B to S-interpret the conventional content of the linguistic expression he has used, but he also intends that B on the basis of his beliefs about the actual circumstances should arrive at the conclusion that A's actual beliefs could not possibly be conveyed by the conventional content of the linguistic expression. B is to arrive at this conclusion since it would be very unusual and somewhat unnatural for A to have the kind of belief which is indicated by the linguistic expression, in the circumstances given. Further, there is no reason for B to suspect that A is trying to deceive him. So, under the assumption that A is rational, not supernaturally forgiving, nor in possession of some kind of information that would totally change the circumstances, or trying to deceive B, B draws the conclusion that the conventional content of A's utterance does not directly correspond to the content he wants to convey.

A furthermore assumes that B through his familiarity with the circumstances, can figure out what A would have said if he were to have literally expressed the content he wants to convey. By choosing a type of expression that is morally praiseworthy but totally implausible, A therefore intends to communicate to B his distance to the situation and his superiority over his enemy. Thus, A can communicate something about his relation to a certain situation by concurrently communicating the conventional content of a certain linguistic expression and intending that B, through his familiarity with the situation, the conventional content of the expression, and his thinking that A is trustworthy, should draw the conclusion that A does not *mean* what he is literally saying. We are here using *mean* in the sense that corresponds to 'intended communicative content'.

10.5.6 COMMON BACKGROUND ASSUMPTIONS

Natural ties can be more effectively used in communication if they are commonly believed to obtain. Natural language use abounds with examples where the speaker makes use of such commonly held background assumptions to convey information to the listener which is different from the information he is conventionally communicating. As an example, consider sentences (26) and (27) below.

(26) When you hit a glass bulb with a hammer, it breaks.

(27) When you pinch me, it hurts.

Both (26) and (27) conventionally and literally are statements about temporal relations. One event is said to be concurrent with or rapidly succeed another event. Temporal and spatial contiguity between events are commonly believed to be associated with causality. If there is a background assumption of a causal link between the two events, it is, therefore,

not surprising to find that sentences like (26) and (27) are often seen as claims regarding a causal relationship between two events.

10.6 NON-SIGNALLED SYMBOLS

Since symbols are conventionalized signs, they are primarily tied to a receiver, or rather to a community of potential receivers. The sender is not primarily involved. His intentions are to a large extent irrelevant to the symbolic status of a behavioral feature or object. Therefore a symbol can be either non-communicative, displayed or signalled. Symbols retain their conventional content when they are not signalled, even if their content is not particularly relevant.

10.6.1 NON-COMMUNICATIVE SYMBOLS

It is difficult to imagine symbolic behavior being used non-communicatively.⁵¹ The possibility of imagining something along this line is dependent on the extent to which the behavior in question can be identified as an independent unit when the ties with its conventional content are severed. This is easier for non-linguistic than for linguistic behavior, since the *raison d'être*, so to speak, of linguistic behavior is precisely its content. Over and above display of content, there are simply not many phenomena which can plausibly and naturally be tied to such behavior. However, there are a few possible candidates. The rote vocabulary learning example (section 10.1 above) would e.g. qualify as non-communicative use of symbols.

Since most intentionally controllable behavior can be displayed, we can also imagine less straightforward non-communicative uses of symbols, e.g. we could display the non-communicative use of symbols.

Imagine again engaging in overt vocabulary learning, not in order to learn but to show that one is learning. What is being displayed is then the action of vocabulary learning which happens to involve symbols.

10.6.2 DISPLAY OF SYMBOLS

With display, things are a little more complicated. We will first consider display of symbols on its own and then as concurrent with signalling.

Display of symbols could occur, for example, in learning another language. A could show B the word X in language₁, for the word Z in language₂. A would then be displaying the word-symbol, not using it non-communicatively or signalling it. Similarly, one could imagine displaying Chinese characters on the wall for decoration.

⁵¹ Soliloquy is not a good counter-example, since in my opinion, it involves communication with oneself.

10.6.3 USE AND MENTION

If the sender positively intends that a symbol should not be D-apprehended by the receiver (the opposite of a signalling intention) but intends that the receiver should apprehend and S-interpret the symbol under the assumption that the content of the symbol is not signalled by the sender, we are getting close to metalinguistic usage. (Using medieval terminology, we are concerned with the term *metalinguistic* in the 'suppositio' sense - differences in symbol use rather than the 'significatio' sense - differences in what symbols conventionally designate, which is what we considered in section 10.3.2 in discussing the status of the word *command*).

All symbols are representative and mostly the symbol-vehicle has no communicative status of its own. It exists only as a representor of some content by arbitrary convention. Its *raison d'être* is its representative function and it is, therefore, very difficult to use a symbol meaningfully except as a signal. But there are exceptions to this rule. Sometimes it becomes interesting to consider symbols for their own sake. For example, in discussing a symbolic system, we could need to mention the symbols rather than to use them.

Using the terminology developed above, we will now define the use - mention distinction from both the sender's and the receiver's point of view in the following way: *To use a symbol* is to employ it as a signal. *To mention a symbol* is to display it with the intention that the receiver should apprehend and S-interpret it while assuming that it is not a signal. We will call such an intention an *intention of pure symbolic display*. From the receiver's point of view, a *used symbol* is a symbol which is both S-interpreted and D-apprehended i.e. seen as a genuine display of content which the sender is intending to communicate. A *mentioned symbol* is a symbol which is apprehended under the assumption that it is not a display of any genuine communicative content on the part of the sender. It is apprehended as non-representatively displayed or at most S-interpreted.

10.6.4 DISPLAY CONCURRENT WITH SIGNALLING

Display concurrent with signalling can, for example, occur through choice of one of several vocabulary items which have the same conventional content but differ in context of use. There is a natural tie between certain vocabulary items and specific contexts. Such vocabulary items can therefore occur both as indicators and as displayers of ties with a certain context of use. Consider (28) and (29) below.

(28) She is very nearsighted.

(29) She is very myopic.

Using (28) does not implicate anything in particular about a speaker, while (29) with some probability points to a certain learning and familiarity with medical terminology. By using the term *myopic*, a speaker can therefore concurrently communicate a certain item of information through the conventional content of the term and display his medical learning through its natural ties with certain contexts. In fact, the study of stylistics can, to some extent, be viewed as the study of how to display while communicating. But display of symbols can also occur in signals in the metalinguistic sense discussed in the preceding section. Consider (30) below.

(30) *Accept* is spelled with two *c*'s.

The word *accept* is not intended as a representative symbol; instead it is intended to be displayed non-representatively as part of a larger representative signal. In written language, it is customary to mark the fact that a symbol has this status, i.e. is not a signal, by devices such as underlining or quotation marks.

Strictly speaking, this analysis of how *accept* occurs in (30) is not correct, since sentence (30) is itself an act of pure symbolic display. A more correct way of describing the occurrence of *accept* in (30) would be to say that it occurred as part of an act of pure symbolic display, becoming thereby a purely symbolically displayed pure symbolic display. Or, in more ordinary language - a mentioned part of an already mentioned sentence.

10.7 SUMMARY OF THE RELATIONS BETWEEN SYMBOLS AND COMMUNICATIVE ACTIVITIES

10.7.1 INTENDED CONTENT, CONVENTIONAL CONTENT, APPREHENDED SIGNIFICANCE AND OBSERVER'S INTERPRETATION

We will start by summarizing the relation between intended content, conventional content, apprehended significance and observer's interpretation in the circle diagram in figure 8.

Figure 8

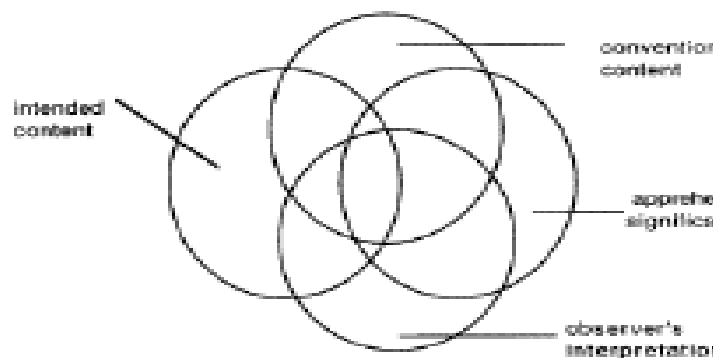
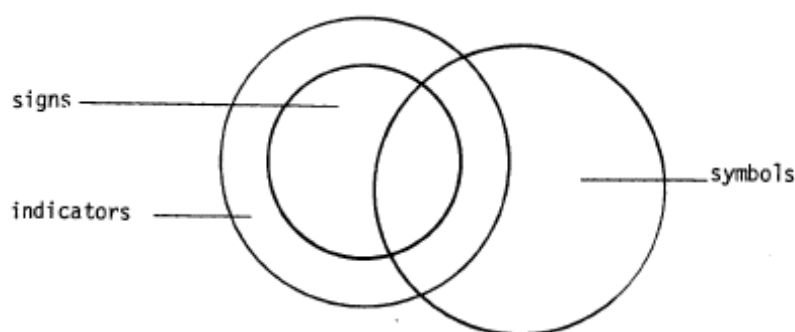


Figure 8 clearly shows the various possibilities of overlap and discrepancy between the four types of content.

10.7.2 INDICATORS, SIGNS AND SYMBOLS

Next we will consider the relation between symbols and the other two reified receiver-oriented communicative objects - indicators and signs. Consider Figure 9.

Figure 9 *Indicators, signs and symbols*

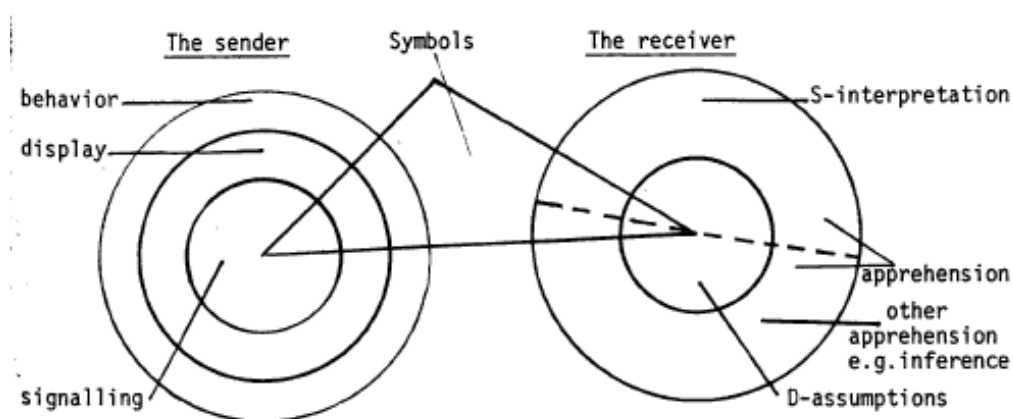


Again, we see the possibilities of overlap and discrepancy. Symbols can, but need not, be taken as signs or indicators. They can also be S-interpreted for their own sake, for example, when they are apprehended as exhibited in acts of pure symbolic display.

10.7.3 SENDER AND RECEIVER ACTIVITIES AND SYMBOLS

Finally, in Figure 10, we will try to summarize the relations between the sender's and the receiver's activities and symbols.

Figure 10



As far as the sender is concerned, the diagram shows how symbols can be non-communicative, displayed and signalled. It also allows for, but does not show how a sender can mention a symbol by tying an intention of pure symbolic display to it, i.e. by intending that the receiver should not apprehend the symbol as a signal.

On the receiver side, we see how symbols can be DS-interpreted i.e. as genuinely displayed by the sender. They can also be S-interpreted without any D-assumption. If the receiver thinks that the sender expressly intends him not to make any D-assumptions, he will regard the symbol as mentioned rather than used.

10.7.4 SYMBOL VEHICLES AS COMMUNICATIVELY RELEVANT

We further see that there is a possibility for the receiver to apprehend, or to apprehend by inference information tied to a symbol, while neglecting S-interpretation, and to add D-assumptions to such an apprehension. To apprehend a symbol without S-interpreting it would be to apprehend its observable properties without apprehending the content conventionally tied to it. If we added D-assumptions to such an apprehension, we would have a sign whose content would not necessarily have anything to do with the conventional meaning of the symbol.

Searle 1968 discusses an example of this sort. An American soldier captured by the Italians during World War II utters the *phrase* 'Kennst du das Land wo die Zitronen blühen?' to his captors, intending to signal to them that he is a German, by virtue of the natural connection between saying something in German and being a German.

From the point of view of the sender, the phrase would thus be a signal whose intended meaning had no connection at all with the conventional content of the symbol. Rather the intended content is connected with the conventional properties of the symbol-vehicle itself.

Let us assume that the receiver(s) apprehended the intended content. Their apprehension would then be an example of apprehending the intended signal content through an act of inference which would involve no S-interpretation of the symbol at all. Thus, the symbol content can in special cases be totally disregarded even though the symbol-vehicle is used to convey some intended content to the receiver.

Searle regards this as a weak point in a Gricean type of analysis of meaning:

'It would seem that any sentence can be uttered with any meaning whatever, given that the circumstances make possible the appropriate intentions' (Searle 1968, 45).

He then goes on to propose an account whereby meanings would be more than just 'randomly related' to the symbols used to convey them. The sender should intend that the receiver's recognition of meaning should take place in virtue of his knowing the rules for the association of meaning with symbols.

I think Searle's objection arises from his failure to distinguish between the four kinds of content distinguished above. Here, actually, only sender, receiver and conventional content are needed. Just as Grice (section 9.4.2), he seems to think that there is only one unanalyzable entity 'meaning', which is indeterminate between the four mentioned types. However, he disagrees with Grice about how it should be analyzed, and thus thinks he has a serious objection to Grice's analysis of non-natural meaning, when he can show that intended and apprehended content need have nothing to do with conventional content. What he, in fact, has done is to provide us with an example supporting our re-analysis of Grice's notion of non-natural meaning in terms of full-blown communication and also supporting the distinctions between different types of content presented in this chapter.

10.8 THE GENESIS OF SYMBOLS

Another case of inference involving symbols would occur if somebody was trying to learn the content of a symbol by observing its use. The natural way to do this would be to observe whatever regular connections there were between behavior, situations and effects of the behavior. This is, of course, no infallible method, as has been amply pointed out by many authors (see Quine 1960). It is nevertheless the manner in which our account of the process of socialization would predict that the learning of conventional content must take place. So, from an ontogenetic point of view, inference and at least some forms of apprehension must be viewed as more primitive than S-interpretation. If we look at the process of conventionalization itself, we have seen that it requires that a sufficient number of people, sufficiently often, in a sufficient number of situations of a similar type, connect (through inference or some type of apprehension) a certain content or meaning (intention) with a certain type of behavior. When they start to do this automatically, without relying to any great extent on any type of inference, they have started to S-interpret. Even though this account is somewhat speculative, I think it throws light on the special character of S-interpretation and the way in which the occurrence of conventional content is a necessary precondition for the development of S-interpretation.

This account holds, at least, for the logical relation between apprehension and inference on the one hand and S-interpretation on the other, even if I, without wanting to make any specific historical claims, strongly suspect that the genetical relationship can be shown to mirror the logical relationship.

This would hold both for the ontogenetic and for the phylogenetic⁵² relationship between S-interpretation and conventional content.

⁵² *Phylogenetic* is here used in a quasi -biological manner to indicate the rise of conventional content as a social phenomenon as opposed to the rise of an individual's ability to manipulate conventional content. Thus, it is not used to indicate the development of something purely biological (genera and species) but to indicate the development of a bio-cultural phenomenon within one species.

11 FULL-BLOWN COMMUNICATION AS IDEAL COOPERATION

In this chapter, we will consider the consequences of regarding full-blown agents communicative interaction as ideal cooperation between normal rational agents.⁵³ We will first take a look at the individual normal rational agent as sender and receiver, and then we will give a definition of ideal cooperative full-blown communication, and discuss how ideal cooperative communication affects sender and receiver.

11.1 NORMAL RATIONAL SENDERS AND RECEIVERS

We will first discuss some of the properties of a normal rational agent qua communicator (see section 5.1.3), and then in 11.3 and 11.4 consider him as a cooperative communicator. We will organize the discussion according to the principles of chapter 5. As before, we are giving an explication of an ideal normative type. The principles can therefore not be taken to be directly descriptive of actual behavior.

1. *Intentional and purposeful communication*

The communicative activities of the sender have intention and purpose and a receiver takes it for granted that they do, unless he has explicit indication to the contrary.

2. *Voluntary and free communication*

A sender and a receiver can attempt to communicate whatever information they like, whenever they like, for as long as they like, provided they have not voluntarily consented to restrictions on their communicative activities.

Normal conversation⁵⁴ seems to meet most of these conditions, see section 15.1. In order to meet the requirements of 'normal agenthood', it works on a 'first come, first served' basis. The communicator who starts a conversation always has precedence. Other communicators are not supposed to interrupt. If they do, they are subject to sanctions of the type *Don't interrupt, let me finish*.

However, as we shall see in section 15.1, there are many types of communicative interaction which are severely restricted and do not at all allow the type of communicative interaction required by 2. This is because 2 states what the sender and receiver would ideally want as free individual agents, not necessarily bound by any conventions or cooperative requirements.

⁵³ For similar views on the nature of communication, see Grice 1975, Furberq 1971 and Fillmore 1974.

⁵⁴ See Sacks et al. 1974.

3. *Motivated communication*

A sender has motives for his communicative activity and a receiver takes this for granted unless he has explicit indication to the contrary. The sender's motives are expressed, displayed or signalled by his communicative activities.

Some of the most common motives for communicative activities are the following:

1. When A intends to influence B's actions with respect to some external effect, A himself usually *desires* that external effect to come about or not to come about. Examples of such communicative actions⁵⁵ are: demanding, requesting, ordering, asking, beseeching.
2. As a special case of 1, A can request information from B. He has then signalled his manipulatory intention to get B to provide the information, but he has also *expressed* his *desire* for the information, and concurrently expressed his being in a relevant *state of curiosity or wonder*. Examples of communicative activities intended to evoke information are: asking, interviewing, interrogating.
3. When A wants to inform B about something, one of the motives for his communicative activity is usually belief in the information he is conveying. Examples of communicative activities which are usually connected with an attitude of *belief* in a sender are: asserting, stating, claiming, ensuring warning, explaining, declaring and arguing.

4. *Pleasurable and painful communication*

A sender normally does not communicate if the activity is unpleasant to him, and does not try to avoid communication if it is pleasant. A receiver takes this for granted unless he has explicit indication to the contrary. Pleasantness and unpleasantness in communication are determined by such things as choice of topic or the type of communicative interaction, i.e. debate, conversation, interview etc.

5. *Adequate communication*

A sender communicates as efficiently, succinctly and relevantly as possible in order to achieve his communicative purposes, and a receiver takes this for granted unless he has explicit indication to the contrary.⁵⁶

6. *Competent communication*

A sender communicates only when he believes it possible to achieve his communicative purposes, and a receiver takes it for granted that this is the case unless he has explicit indication to the contrary.

⁵⁵ The term *speech act* is used by Searle 1969 roughly for the set of communicative acts that are effected through speech. See also the discussion of this term in chapter 14.

⁵⁶ In other words, we are packing the Gricean maxims of quantity, relation and manner (Grice 1975, 47) into our principle of adequacy. Grice's maxim of quality, on the other hand, partly belongs in our principle of motivated action and partly in our principle of competence.

Some of the preconditions for full-blown communication are: Spatio-temporal contact (not necessarily contiguity), certain types of motor ability and sensory ability in sender and receiver, and certain shared cultural presuppositions such as linguistic conventions.⁵⁷ Further, a competent sender does not enter into communication about a certain topic with a receiver unless he believes he has some information about the topic. In the same manner, a competent sender does not make claims for which he has no evidence. A competent sender does not talk loosely.

11.2 A DEFINITION OF IDEAL COOPERATIVE FULL-BLOWN COMMUNICATION

It is the contention of this thesis that full-blown communication requires at least some degree of cooperation. The sender takes the receiver into consideration in sending information, and the receiver takes the sender into consideration in receiving information. They are thus under mutual consideration striving to achieve the common purpose of transference of information, and are, therefore, according to the definition in 5.2.4, cooperating. This mutual consideration affects all the aspects of communicative signals (mostly speech) which have been traditionally studied by linguists: from the purely phonetic aspect, through the syntactic and semantic aspects to the pragmatic aspects of the signal. The widely used concept of 'analysis by synthesis' is a clear example of this from the receiver's point of view, and the attempts a sender makes to clearly articulate, are an example from the sender's point of view.

Sending and receiving information seems to be regarded as valuable activities by most individuals. Through communication, they can express, display and signal their emotions and attitudes. They can influence each other's emotions, attitudes and behavior, and they can receive feedback from each other. Thus, communication can fulfill many different functions, from the purely 'phatic'⁵⁸ to more external purposes.

As a basis for the following discussion, we will start by giving a definition of ideal cooperative full-blown communication modeled on the definition of ideal cooperation given in section 5.2.4. By a *communicator*, we will intend a typical agent who is engaged in full-blown communication.

A definition of ideal cooperative full-blown communication

Two or more rational agents are said to be engaged in *ideal cooperative fullblown communication* to the extent that:

⁵⁷ Searle 1969, 57, provides a good account of some of the competence requirements under the heading 'normal input and output conditions'

⁵⁸ The term was coined by B. Malinowski 1923, 314, to refer to the exchange of stereotypical phrases, not primarily intended to convey information, but to establish and maintain social cohesion between communicators.

1. They are communicating in a full-blown manner to achieve a common purpose.
2. They are ethically and cognitively considering each other as normal rational communicators in trying to achieve those purposes.
3. They trust each other to act according to 1 and 2 unless they give each other explicit notice that they are not.

Comments: The common purpose can be very short-term, or long-term. In fact, in communicative cooperation, as in all other cooperation, it is possible to have several simultaneous common purposes, where sometimes at least the short-term purposes can be intended as partial goals in order to achieve a long-term purpose. For example, A and B can ask and answer questions, tell each other stories, debate with each other - all types of communicative cooperation with slightly different purposes - in order to expose and analyse a certain topic - the long-term common purpose.

Further, as in all cooperation, individuals sometimes do not fully cooperate. Rather they cooperate partially, sometimes pursuing private purposes and sometimes common purposes. However, as long as they are communicating, they at least have one common purpose - the transference of information. If this common purpose disappears, there will no longer be communication. The difference between what we can expect of an individual as a private normal rational communicator and as an ideally cooperative communicator will be brought out below by transforming our normal rational communicators into ideally cooperative communicators.

Finally, the trust condition should be clarified a little. Normally, to enter into full-blown communicative interaction is to enter into a form of ideal cooperation. Normal conversation could thus be seen as contractual (see Rommetveit 1974, e.g. p. 68). However, I think the notion of cooperation better describes the characteristics of full-blown communicative interaction than the notion of a contract, which seems to me an institutionalized and conventionally codified special case of cooperation not always applicable to communication.

A remarkable fact about communicative cooperation seems to be the ease with which one enters it and becomes bound by its norms. All that is required seems to be response when one has been exposed to communication. This response instantaneously creates expectations of continued communicative cooperation. In order to avoid such expectations, explicit indications that one does not intend to cooperate are required. Examples of such indications are: *No comments, I am sorry I have no time.*

In the same way, once communicative cooperation to achieve some purpose has begun, one is obliged to achieve this purpose before one can abandon cooperation. Leaving in the middle of a communicative interaction is considered extremely rude and meets with strong social disapproval. If one has to leave before a communicative purpose has been achieved, very elaborate techniques of the following type have to be used: *I am so sorry, it's not out of lack of interest... but I have to go now.*

For an interesting study of the techniques used by communicators to initiate and end communicative cooperation, see Sachs & Schegloff 1973.

Mutual consideration in order to achieve a common communicative purpose also helps to throw light on the strong *relevance* requirement in most ordinary conversation. The remarks of a communicator are supposed to be relevant to the purpose at hand, otherwise he is chastized. In general, one could perhaps say that part of the common purposes of a conversation, in fact, arise through mutual consideration of each other's interests, intentions and motives.

11.3 THE IDEALLY COOPERATIVE SENDER

Interactive communication should, in order to be ideally cooperative, be such that it does not prevent any of the individuals who are communicating from being normal rational agents. In sections 5.2.3 and 5.2.4, we saw that to this end, ethical consideration is needed. We will now point out some of the implications of such considerations for communication. As before, we will organ the discussion according to the outline of chapter 5.

11.3.1 INTENTIONAL AND PURPOSEFUL COOPERATIVE COMMUNICATION

Whatever other purposes cooperative communication might have, transfer of information will always be one of them. The sender should therefore always while taking the receiver into consideration, try intentionally and purposefully to convey information to him.

Further, the sender through the norms of ideal cooperation and reflexive projection knows that the receiver will usually trust him to have such intentions and purposes. In fact, he expects the receiver to construct, cooperatively by inference, a context in which his utterance has such a purpose, i.e. is informative.

Thus, we can say that there is a *presupposition of agenthood*., i.e. of voluntary intentional purposeful action, both in sending and receiving information. Presupposition is here used in a wide sense including all types of background information that play a role in communication. When we need a more restricted notion, we will use qualifying adjectives.⁵⁹ The classical examples of the presupposition of *agenthood* are of the following type:

(31) Marvin did not sleep all day.

(32) Marvin was sober yesterday.

In order to give these sentences a point, a receiver must construct a context in which the information in (31) and (32) is contrary to expectations, i.e. for (31) something like Marvin was very tired yesterday or Marvin usually sleeps all day and for (32) some reason for why Marvin should have been drinking yesterday.

⁵⁹ Thus, the term *presupposition* is here intended to cover both the Gricean notions of conventional and non-conventional implicature, (see Grice 1975, 45), as well as most of the types of presupposition discussed in Allwood 1975, 6.

11.3.2 VOLUNTARY AND FREE COOPERATIVE COMMUNICATION

A sender does not expect to be prevented by others from communicating and he should himself not prevent other individuals from communicating. Further, ethical consideration of the receiver implies that communication should be such that it should not prevent a receiver from being an agent. A receiver should always have leeway with regard to action, attitudes and emotions. For example, he should be able to take a stand freely on any information that is communicated to him. It should always be compatible with a sender's intentions that a receiver merely apprehends the information and then suspends judgement or rejects it. In other words, ideally cooperative communication should allow interchanges of the following type, where A's rejection of B's information does not mean that B has not communicated some information to A.

(33) A: Could you lend me a dollar?

B: No, I don't have any money.

A: I don't believe you, I just saw a fat bunch of dollar bills in your wallet.

It is in order to allow for this type of communicative exchange that we do not require more than D-apprehension in the definition of full-blown communication. We do not want to exclude the possibility of mere D-apprehension of the information communicated, since this is required to permit the receiver to retain his agent-status. For a somewhat different analysis of this phenomenon, see Wetterström 1975, § 50, who develops a distinction between communicators and manipulators, where only communicators would be ideally cooperative senders intending that the receivers should have freedom to reject the information that is provided. A manipulator in Wetterström's sense does not intend his receivers to have this chance, but intends to induce beliefs in them directly, without giving them a chance of considering the validity or truth of the information. A hypnotist who under hypnosis induced various beliefs in an individual would thus not qualify as an ideally cooperative communicator, but he would still be a full-blown communicator in our analysis.

11.3.3 CONSIDERING THE MOTIVATION, PLEASURE AND PAIN OF THE RECEIVER

Treating the receiver as a 'normal' agent is also a very important ingredient in politeness. As we have said above, communication should always be such that it leaves the receiver leeway in regard to action, attitudes and emotions. It should give the receiver leeway as regards motives, and it should not increase his pain or decrease his pleasure. These seem to be essential ingredients in politeness. One should not impose or cause pain. Let us first consider how considerations of another person's agenthood plays a role in everyday conversation. Presuppositions of ethical consideration of agenthood and motivation are one of the factors behind the inferences a sender can expect a receiver to make and one of the factors that actually do play a role in a receiver's interpretation of a sender's signal. Why is it that most senders would use a sentence like (34) rather than one like (35) to get a receiver to close a window?

(34) Ouh, it's cold in here.

(35) Close the window.

This is even more surprising in view of the principle of adequacy, according to which one is supposed to present the receiver with information as adequately and efficiently as possible. On any reasonable count, (34) must be regarded as less adequate than (35) as far as the pure communication of information is concerned. Only by including the sender's ethical consideration of the receiver as an agent who should be able to provide his own motives for his actions do we get an explanation of the choice of (34). This can in fact also be seen as a critique of the Gricean 1975 conversational maxims, since they would lead one unequivocally to expect senders to choose (35). One could perhaps say that, in spite of his intentions, Grice has not paid sufficient attention to the fundamentally cooperative nature of conversation.

Ethical consideration of pleasure and pain in connection with communication has consequences of the following sort for the sender. He should try to avoid information that will increase pain or decrease pleasure for the receiver.

Many of the maxims of polite conversation incorporate this goal. For example one should avoid topics that are culturally considered to be unpleasant such as death, pain and suffering or one should avoid topics that have no interest for the receivers, i.e. are boring to them.

In the same manner as with agenthood, we can say that the norms of communicative cooperation give rise to presuppositions of motivation and pleasure and pain. If A says that it is raining, B can take it for granted that A believes that it rains '(motive) and that this information is not particularly painful to A (pleasure and pain).

11.3.4 CONSIDERATION OF THE RECEIVER'S POSSIBILITY TO PERFORM COMPETENT AND ADEQUATE ACTIONS

If communication is to be adequate, it must be efficiently and relevantly related to the communicative purpose at hand. Since the opportunity to communicate is valuable, common pleasure will be increased if there is an efficient method to shorten transition periods between communicative signals, i.e. of making communicators quickly conscious of the opportunity to communicate. This can, for example, be accomplished by clearly marking the beginning and end of each communicative signal.

Thus, one of the ways a sender can be considerate to a receiver is by clearly indicating when he has an opportunity to communicate. Another way is by taking the receiver's intentions and motives into consideration.

If B asks A where the closest bank is and A can assume that B wants to do business in the bank, he should, as an adequate cooperative communicator, not tell him about the bank around the corner which is closed but about the nearest bank which is open.

The adequacy of A's communicative activity is here also related to the fact that A does not want to increase B's pain (in the abstract sense of the notion we have in mind in this thesis). The various aspects of cooperation thus always interact.

The norms of adequacy and competence also give rise to presuppositions of adequacy and competence. One takes it for granted that a sender's communicative activities are adequate and competent, and one feels a right to be angry if they are not.

The sender should not, through his communication, prevent the receiver from performing well-motivated and rational actions. The receiver will not be able to act rationally if the information he receives from the sender is incorrect or dubious. The sender should therefore only give the receiver information of which he is competently convinced (section 8.4.5). This thus implies that:

1. The sender should not give the receiver information he believes to be incorrect, i.e. he should not *deceive* the receiver. When dealing with linguistically asserted information, this means that he should not *lie*.
2. The sender should not give the receiver information he does not rationally believe himself, e.g. because of inadequate evidence, i.e. he should not *talk loosely*.

Deceptive and loose talk are thus not ideally cooperative types of communication but they can, all the same, be counted as types of full-blown communication. They must here be distinguished from *being mistaken*, i.e. communicating information one rationally believes to be true, but which turns out to be false. Being mistaken is fully compatible with ideally cooperative communication. The history of science is full of falsified hypotheses which at the time when they were proposed seemed fully competent and backed by evidence. Talking loosely is, thus, a label which is supposed to be applied at the time of communication and not at some later time when our system of beliefs has undergone radical changes. Loose talk is, thus, in principle a concept which is independent of whether what is being said is true or false. In other words, loose talk might just as well happen to be right as mistaken. Loose talk is entirely relative to the relation between the information a competent sender or receiver has at a certain point in time and the information he communicates at that time.

Ethical consideration of the receiver, thus, provides a rather satisfactory explanation for why senders usually try to convey information which they think is correct. This explanation also obviates the need for a special 'convention of truthfulness', like that proposed by Lewis 1969, 177. No conventions over and above ethical consideration based on the principles of ideal cooperation are needed.

We will refer to communication where what a sender conventionally or nonconventionally signals, displays or expresses corresponds to genuine motives in the sender as *genuine* communication. Communication can thus be full-blown without being genuine and vice versa, cf. non-deceptive display.

Sometimes, there can be a conflict between genuine communication and considerate communication. One might cause a receiver pain or prevent him from being a free agent by telling him what one genuinely thinks of him. This is in fact one of the most difficult ethical problems of communication.

Further, another part of a competent cooperating sender's consideration of a receiver should concern the restrictions a particular receiver introduces on the kind of communicative

purposes that can be achieved. For example, if A asks B a question, he should believe that B is able to answer it; if he asks B to perform some action, he should believe that B can perform it and if he provides B with some information, he should believe that B can understand that information.

Thus, one normally does not ask first graders in primary school to explain Einstein's theory of relativity. One does not normally ask a person in bed with his leg cast in plaster to open a window and one does not normally try to explain a problem in astrophysics by presenting a set of equations if one is talking to individuals who have little or no background in mathematics.

The last example concerning a sender's competent consideration of a receiver's cognitive and linguistic background is especially important in teaching and in the mass-media, where if it is neglected, communication quickly comes to a breakdown. In view of the special importance of this aspect of the cooperative consideration of a receiver, we will give it the name *Karlfeldt's principle* in honor of the Swedish Nobel prize poet Erik Axel Karlfeldt who formulated the principle quite graphically in one of his poems.⁶⁰

11.4 THE RECEIVER AS A TRUSTING COOPERATOR

11.4.1 CONSTRUCTIVE COOPERATIVE INTERPRETATION

As communicative interaction is cooperative, receiver as well as sender have to be cooperative. The receiver should always treat the sender as a 'normal rational agent', trying to find an interpretation of the sender's activities that make them seem purposeful, motivated, benevolent, coherent,⁶¹ adequate and competent. The receiver should thus try to construct a context and an interpretation of what the sender intends to communicate which makes sense given the assumption that the sender is a 'normal rational agent'. In doing this, he should use the reverse Karlfeldt principle, trying to make use of all his expectations and assumptions about the sender's intentions, emotions and attitudes, not least the cognitive ones. We have already seen examples of this in the presuppositions of agenthood, pleasure and pain, motivation, adequacy and competence discussed above. The goal of the receiver is always to arrive at maximal intentional depth (see section 8.4.4), i.e. to understand what and why the sender is communicating and thus to uncover as much as possible of the hierarchy of embedded expressive functions, manipulatory intentions, and content contained in the sender's purposive plan for communication.

⁶⁰ The relevant lines appear in the poem 'Sång efter skördeanden' (trans. 'Song after the time of harvest') in the collection *Fridolins visor* (trans. 'The poetry of Fridolin').

"Han talar med bönder på böndernas sätt
Men med lärde män på latin."
(He talks with peasants in the manner of peasants
And with learned men in Latin).

Furberg's 1971, 93, 'principle of relevance to the addressee' and Grice's 1975 maxim of relation both express something very similar to what I am here calling Karlfeldt's principle.

⁶¹ For a similar view of the receiver's job, especially regarding coherence, see Fillmore 1974, 1-3.

11.4.2 MISUNDERSTANDINGS

If a receiver fails to cooperate in this way, either intentionally - thus being genuinely uncooperative - or unintentionally, and thus being cooperative but lacking in ability, we will say that he *misunderstands* the sender. Misunderstanding thus involves a receiver intentionally or unintentionally apprehending information which is non-identical with a sender's intended communicative content. Consider the following examples of special cases of misunderstanding.

If a receiver intentionally merely S-interprets the conventional content of a signal but neglects the sender's actual intended signal-content, we will say that he is guilty of *literalism*. A case of literalism would be the following variation on our open window example: Shaking with cold, A says to B who is standing by an open window from which cold air is streaming into the room: 'It's cold', thereby intending B, on natural and ethical grounds, to draw the conclusion that he wants the window closed. B interprets A's utterance literally (intentionally) and answers: 'Yes, it certainly is'.⁶²

If literalism is unintentional, we will quite simply refer to it as *unintentional literalism*. Another case of misunderstanding would be the following: Consider the above example again. Suppose that B suffers under the misapprehension that A is a masochist and therefore interprets A's utterance as a request to open all the windows and doors of the house. This would not be literalism but still misunderstanding of a type that we might call *false inference*.

Both literalism and other types of misunderstandings are pretty common. But literalism seems more justified than other types of misunderstanding since the meaning of a symbol is socially a more objective fact than the sender's intended communicative content. There seems to be to a sort of quasi-moral rule which says that a receiver therefore always has the right to appeal to conventional meaning in his responses to the sender. A receiver can always uncooperatively choose to misunderstand in virtue of conventional meaning.

Thus in cases where there is a clash between conventional cooperation and unconventional cooperation, conventional cooperation seems to be stronger, at least legally (since legal judgements often are based on factors which are easily verifiable) and perhaps ethically, too.

This seems a little strange in view of the fact that the intended signal content is hardly ever identical to the conventional signal content, but rather the value of a function of conventional content and the sender's and receiver's presuppositions of various types. The common case is that communication requires constructive interpretation. On all levels the receiver is supposed to construct models or interpretations that fit the sender's output data.

⁶² Other more celebrated examples of literalism are to be found in connection with feuds between different religious sects about literal or non-literal interpretations of sacred texts, or in the analysis of poetry (see Richards 1935).

11.4.3 METAPHOR

Let us now look at a few examples of constructive interpretation involving semantic and pragmatic factors. Metaphor, satire, indirect speech acts and puns are such examples. Consider the following example taken from Reddy 1969:

(36) The old rock was brittle with age.

Now imagine that sentence (36) is uttered by student A to student B after having had a session with a professor who has criticized a paper they have jointly written. Since B believes that A takes him into consideration, he believes that A wants to convey information that has some point. There is no obvious point to the literal content of his utterance. B therefore realizes that he is to use certain shared presuppositions in order to apprehend the point of the utterance. This assumption is reinforced by the definite article in the utterance for which the rule of use is that a speaker should only use it in referring to an object he believes to be salient both to himself and the listener. B therefore uses the conventional semantic information to construct a fit with some state of affairs which he assumes that he has in common with the speaker. The old professor provides such an approximate fit which is furthermore strengthened by cooperative assumptions, and so, B takes A's utterance to be about the professor.

In fact, all the cases discussed in sections 10.5.4., 10.5.5 and 10.5.6 of indirect speech acts, irony and common background assumptions can really only be understood with reference to cooperative constructive interpretation of communication.

11.4.4 FLOUTING AND CLASH

H.P. Grice has pointed out (Grice 1967, chapter 2, 12) that cooperative constructive understanding can arise not only through the sender's and receiver's adherence to the norms of normal rational agenthood, but also through flouting of the norms or clash between the norms. Metaphor and irony are examples that involve flouting of the competence and adequacy requirement.⁶³ One says something which, when interpreted literally, is so obviously irrelevant or incorrect that a constructive reinterpretation, if cooperation is to remain intact, must be made. E.g. upon returning from a very rainy vacation which they had hoped would be sunny, A says to B: *The weather was just perfect!* A is here using the principles of competence and adequacy to make B reinterpret what on the level of conventional content seems to be blatant flouting of these principles. He can expect B, on the basis of presuppositions, to construct an interpretation of his intended content which will be compatible with his being an adequate and competent sender. Thus, we see how the principles can continue to operate even if they are disqualified on the level of conventional content. They always apply to the action an agent *really* wanted to perform.

⁶³ Irony, of course, involves more than flouting. The information intended to be conveyed must also involve factors which make the status or well-being of sender or receiver questionable, i.e. telling A who is lousy at chess that he is a really great chess player, seems to qualify as irony, while telling the world champion of chess that he is a lousy chess player, could perhaps be classified as a bad joke, but hardly as irony. Further, the examples bring out another feature of irony. Successful irony does not usually involve completely obvious flouting of norms, but rather it leaves the receiver in some doubt about whether the norms have been flouted or not.

A clash between two norms can also be informative. A, who is B's impresario, after a disastrous performance says to B: *This was perhaps not your most brilliant performance*. B can then infer that A does not want to hurt her, since it is reasonable to assume that for A, considerations of pleasure and pain must have been in conflict with consideration of adequacy and competence. A does not want to cause her pain by telling her how bad the performance was, yet he does not want to withhold information which might be essential to her as a competent agent. He therefore selects a formulation the conventional meaning of which is such that it allows for the full truth, yet does not make it painfully evident.

Further, A is counting on B's awareness of these factors and is expecting her to reconstruct the implicated information on the basis of a consideration of him as an ethically and cognitively considerate sender. Again, we see how conventional content is only one of the factors determining what information a sender expects to convey and what information a receiver normally apprehends.

Part III Communicative Acts

12 INTRODUCTION

In the last part of this thesis, I will attempt to apply some of the notions and ideas developed in the previous two parts.

In chapter 13, I discuss the development of communicative acts in children on the basis of some recent empirical work in this area.

In chapter 14, I reconsider the structure of communicative acts and discuss so-called felicity conditions for communicative acts. I also consider the relation of so-called speech acts to communicative acts. The framework provided for the description of the structure of a communicative act is then used to attempt an analysis of the semantic field constituted by verbs denoting activities or aspects of activities relevant to communicating. Finally, the contributions made by Austin, Searle and Bühler to theory of communicative activities are discussed.

In chapter 15, I consider some empirical work on conversation in the light of the discussion concerning cooperative communication in chapter 11. I also try to give an analysis of the notion of a language game.

Finally, in chapter 16, I discuss some of the implications of the present study for the traditional division between syntax, semantics and pragmatics.

13 THE ONTOGENESIS OF COMMUNICATIVE ACTS

13.1 THE RELATION BETWEEN CHILD AND ADULT COMMUNICATION

The account given in chapter 4 of the rise of social consciousness will now be combined with the analysis of communication to yield a to some extent hypothetical and oversimplified account of the ontogenesis of communication. The reasons for giving this account are first that it has some inherent interest and some empirical support in work done by Bruner 1974, 1976, Bates et al. 1975 and Bloom 1973; and second that it provides a background which should be empirically testable (empirical work is not very fruitful unless done in the light of some theory). But thirdly, and perhaps more importantly, it is intended to give us a better picture of adult communication, since I want to claim that some of the traits of early linguistic communication are also traits of later communication. Even though biological maturation and socialization (for example through internalization of the conventions of language) in many ways significantly alter the character of communication, some of the basic characteristics remain the same. In fact, what will be said can be seen as an illustration of the more general psychological principle that things which are learned early remain a sort of foundation for things that are learned later, and are the things one can expect to be retained and to reappear in situations of duress for the organism.

13.2 INDICATIVE BEHAVIOR

It is fairly uncontroversial to claim that the child's first vocal behavior, in fact, his behavior in general, is a non-intentional, perhaps innately conditioned (Freedman 1972), manifestation of inner states connected with needs, wants and desires. We will say that the first vocal behavior of the child is purely *expressive* - a natural outlet for inner states. Expressive behavior as characterized here is thus entirely non-communicative from the sender's point of view. As one would expect, this type of vocal behavior reappears in adult behavior as outlets of strong emotions of pain, sorrow or joy. Such non-communicative manifested behavior can for the adult be of at least two types: either 1) non-verbal vocalic behavior, or 2) verbal behavior whose conventional content enhances its expressive function (like swearing and cursing). Through socialization into a certain community the adult has availed himself of behavior whose conventional content is emotionally provoking. This behavior can now be used non-communicatively to express emotion, which, of course, is not to deny that swearing and similar behavior also can be used to display or even signal emotion in other situations.

13.3 MANIPULATION AND DISPLAY

13.3.1 MANIPULATION

The adult very quickly starts to interpret the child's early non-intentional behavior (smiles, cries etc.) as indicators of inner states. The child is crying because he is hungry or upset

etc. The child is then treated in accordance with the interpretation given by the adult to the child's behavior. The child is fed or kissed and cuddled. There is also evidence (Bates et al. 1975) to show that many adults from the very beginning treat the child's behavior as intentional signals, or at least as an act of display of inner states. The child's behavior is treated as a sign rather than as a mere indicator. Thus, the adult will respond to the child's behavior as if it were intentional involving certain purposes and in various ways try to determine what the child desires. It is plausible that such adult behavior will act as a self-fulfilling prophecy and be instrumental in developing the child's consciousness and intentional control of his own behavior.

Around ten months of age, the child, according to Piaget 1954, reaches the fourth stage of his sensory-motor development.⁶⁴ This is the stage where the child begins to become aware of the possibility of causal manipulation of the world around him. For example he can use one object to manipulate another e.g. by pulling a table cloth he can reach the objects on it.

If Piaget's theory of genetic epistemology with its picture of cognition developing in successive stages is correct, this is the stage where one would expect the child to become consciously aware of the effect of his own behavior on the adult. Causal awareness will coincide with consciously intentional goal directed behavior. By cries or other behavior the child will try to regulate the adult's behavior. He will then have gone from purely expressive manifestation to purposive action and manipulation. As suggested in section 2.4.1 the development of intentionality is probably also connected with the experience of frustration. Such frustration can occur already with reflexes such as grasping or sucking. It is therefore probable that the development of intentionality is a very gradual process which does not coincide with any of Piaget's sensory-motor stages.

13.3.2 DISPLAY

Manipulation can, thus, initially not be differentiated from purposive behavior in general. The child is probably not yet differentiating between influencing other agents and influencing objects in general. Gradually, through maturation and socialization the child will begin to distinguish human agents from other objects and finally after a long developmental process he will see both them and himself as conscious intentional agents.⁶⁵ Only when this happens can we ascribe to the child an intention to want to influence the adult's conscious apprehension of the child's behavior rather than just his external behavior. When this happens the child has begun to truly display and left the stage of pure manipulation. He is becoming socialized and is forming hypotheses about the way he is viewed by other individuals.

⁶⁴ For a good summary and discussion of Piaget's 6 stages of sensory-motor development, see Flavell 1963, 87-121.

⁶⁵ Since I am aware of no conclusive proof against solipsism, other than our strong tendency to think it preposterous, all claims made about the development of the child's consciousness are in the last instance not verifiable, as far as I can see. Furthermore, it is very difficult to propose any criteria which would make the claims made about the development of consciousness operationalizable. The popularity of behaviorism was, of course, not entirely without reason.

The following passage from Bates et al. 1975, 216, gives an illustration of how one might imagine the early development of intentions to influence the conscious apprehension of an adult.

'C is in her mother's arms, and is drinking milk from a glass. When she has finished drinking, she looks around at the adults watching her, and makes a comical noise with her mouth (referred to in some dialects as 'the raspberries'). The adults laugh and C repeats the activity several times, smiling and looking around in between. Her parents explain that this behavior had been discovered earlier in the week, and that C now produces it regularly at eating and drinking times, always awaiting some response from the adult.'

C's actions show a beginning awareness of how others might apprehend her and thereby the first steps are taken toward displaying action rather than merely acting. If we continue to quote Bates et al., 216, we shall see that C apparently does not limit her new ability to her own behavior but extends it to external objects as well.

'Shortly thereafter, however, C evokes the same adult behavior by involving a third element, an object that is 'showed off' until the adult responds.'

So as an outgrowth of manipulation the child begins to use his own behavior and external objects in order to evoke reactions from adults that gradually lead to an appreciation on the part of the child of the consciousness of other individuals. He is learning to display as he learns the reactions of other individuals.

We can now expect that the child will also start crying not just because he is angry or hungry (purely expressive behavior) but in order to show that he is hungry or angry (display).

More generally, display, in fact, seems to be the essential step required of the child to start the role-playing which according to authors like Cooley 1902, Mead 1934 and Piaget 1954 is the socializing activity par excellence.⁶⁶ Now the child has an idea of how his behavior is viewed by others and can by trying various types of activity learn to master them.

13.4 RITUAL, CONVENTION AND COMMUNICATION

13.4.1 RITUALIZED GAMES WITH VOCAL PARTS

Even if a child has learned to display one type of activity this does not mean that he can display other activities. One activity can be displayable long before others, just as some activities can probably be governed by intention long before others.

⁶⁶ Since we are here taking the position that the child's mental awareness and ability to communicate develop gradually through his socialization, we are rather siding with Piaget than with Vygotsky 1962, 9-24, who in his critique of Piaget claims that mental processes are an outgrowth of social activity. The position taken here is that the development of mental processes and the development of social activity are interdependent, but that mental processes to some extent can develop independently of social activity.

The same thing holds of conventionalization. It can apply to one activity in relative isolation, before other activities.

Conventional behavior is behavior which is regularly repeated under conditions that do not necessitate it. Regularly repeated behavior of this type can be observed in children during their first year of life. One very common type consists of games related to peekaboo (see Bruner 1974), involving adult and child alternating a certain activity, such as hiding one's face, following it with a characteristic sound or laughter. The sound can vary initially from time to time but eventually becomes standardized. When the child has mastered a ritualized game of this type he has been exposed to the two essential characteristics of conventional behavior 1) ritualized repeated behavior and 2) through the playful nature of the game a certain degree of arbitrariness (the game is not tied to any specific organic or situational factors).

Bruner 1974, 20, provides an amusing example of a ritual of this type involving vocal behavior which is being conventionalized. (The mother and child were studied regularly once every two weeks by Bruner's group.)

Nine months. Give and take game, child offering book to mother and then withdrawing it when mother reaches for it, with child showing great excitement. Then hands book to mother and says *kew* thank you?) when taken.

Ten months two weeks. Child plays with blocks. Says *kew* when offering block to mother and to camera operator. Not observed ever to say *kew* when receiving block or any object. Give and take game always involves child saying *kew* when handing block to mother.

Twelve months two weeks. Mother hands child ring. Now child says *kew* when receiving. Three months later. Child hands mother toy post box, a favorite. Child says *look* when handing.

We see how the sound *kew* is an integral part of the handing over activity. In handing over the child says *kew*. Later, the role of the sound is changed and it becomes a natural part of receiving. In both cases we have vocalic behavior as a conventional part of an interactive action without the behavior itself being primarily communicative.

Thus, vocalic behavior can be an integral, possibly even conventionalized part of interaction without being a signal or an act of display; see section 7.5. Its status is equivalent to that of other non-vocalic types of conventionalized action, such as kissing instead of nose rubbing in order to be affectionate in western culture. Thus, just as kissing could be described as being affectionate in a conventional way rather than signalling affection conventionally, the child's *kew* is a way of conventionally participating in the give and take game rather than a way of conventionally signalling his participation.

Vocalic behavior of this type is also present in adult interaction. Words of greeting such as *hi*, *good-bye*, *how do you do* are part of initiating and terminating an encounter. If you say *hi* to somebody, you are greeting him. You are not normally signalling to him that you are greeting him. In other words *hi* is a conventional way of manifesting initiated encounter. It is not a conventional, arbitrary *symbol* of greeting; if anything it is an arbitrary way of greeting which by natural association can come to function as a sign or signal.

In adult language words like *ouch* are other examples of conventionalized vocal behavior, in this case - non-interactive expressive behavior. As with *hi*, saying *ouch* is a conventional action. (See section 7.5). It is the conventional way to express pain. It is not a symbol of pain, but can, because of a natural tie with its conventional role in actual communication, function as a sign or signal. An important point to note here is that one can conventionally express pain, and thus also display pain, by saying *ouch*, without having any actual pain. As we have noted earlier, conventionalization severs actual reasons and motives from behavior by tying certain reasons and motives conventionally to the behavior. For a cooperative social agent, who is regulated by the principles of ideal cooperation, intentions conventionally expressed by behavior often coincide with actual intentions, but they do not need to.

An expression like *thank you* in adult language is interesting since it combines interactive with expressive function. It is on the one hand a conventional way to acknowledge that one is a receiver, and on the other it is the conventional way to express gratitude. The child, in the example quoted from Bruner, has probably only mastered it in its former function.

13.4.2 CONVENTIONALIZED MANIFESTATIONS OF MANIPULATION

The child as part of his growing awareness of the possibilities of causal manipulation of the world around him also tries to influence the behavior of other agents.

As we have seen, such influence can be affected through vocal behavior, e.g. the child can cry not only because he is hungry but in order to be fed. It is not unreasonable to suppose that vocalizations intended to influence other individuals could be ritualized and conventionalized in approximately the way suggested for interaction sequences above. In fact, according to some authors (Bates et al. 1975, 220) this is what can be observed.

'The earliest imperative vocalization in Marta was an insistent *Mm*, relatively long in duration and high in pitch. If the adult responded with something like "Is this what you want?" while reaching for the requested object, Marta would then grunt *Mm* at a lower pitch, of briefer duration, often with a sharp nod and a jerk of the upper body. If, however, the adult was mistaken, Marta would repeat the long *Mm* request with increased pointing and other gestures. Later the *Mm* request was occasionally substituted by a more clearly 'word-like' creation of her own, the sound *ayi*. This sound was also used deictically to point out novel events or objects. Note that *ayi* is then functionally identical to pointing, which Marta had used in imperative and declarative sequences for some time. In Carlotta there was a similar progression from a relatively natural sound to a somewhat more arbitrary or ritualized signal. Her first requests and declaratives were both accompanied by a sharp aspirated sound *ha*. Later she developed the two-syllable *na-na* in any situation of needs, from wanting an object, to calling an adult from another room.'

If the vocal behavior of a child repeatedly has the same effect on other agents the chances increase that the child will be able to remember that particular behavior and produce it again when he wants to produce the same effect. Since the adults around the child are aware of this, conventionalization can take place. It is twofold. First it applies to a certain type of behavior - manipulating the behavior of another agent - and second it applies to the expression of a more or less specified desire on the part of the child. The child's

vocalization would thus become a conventionalized manifestor both of a way to manipulate behavior and of a way to express desire, and thus simultaneously acquire both the mood and the mode traditionally connected with the category of imperative. See sections 10.3.1 and 10.3.2.

13.4.3 THE MOOD OF POINTING AND REFERENCE

Besides being a medium for the expression of inner states and influencing others, vocalic behavior very quickly becomes a medium of reference and representation - perhaps the most essential linguistic functions.

Reference probably has its origin in preempted gestures to reach or grasp objects (Bruner 1976). For a different view, see Werner and Kaplan 1963. The child is beginning to form an idea of discrete entities in the external world and develops a way to indicate these to himself and adults. (The philosophical problems that pertain to how a common object of reference is established by child and adult, if it ever is, will not be treated here, but we will simply assume that such objects eventually are established).

Bruner 1976: 'By eight months and often earlier in 'comfortably familiar' joint action formats, the child holds his hand out toward the object in a non-grasping directional gesture. By a year, when he is presented pictures on the page of a book, he rarely 'grasps' at the picture, but touches it, and eventually touches it only with the index finger.'

Bruner also claims that child and adult do a certain amount of cross-checking so as to assure agreement regarding an intended referent. Therefore we can hypothesize that learning to refer probably is an aid in developing conceptual object categories which are conventionally acceptable in the community into which the child is being socialized.

What is the communicative status of the pointing gesture? It seems to me that there is a small difference between the cases of conventional manifestations we have studied above and pointing. To the extent that pointing is not a mere expressive reaction to the presence of some object it must involve some degree of awareness on the part of the sender of the interpretation and apprehension of the receiver. It will be an action intended to influence the receiver's apprehension, not just his behavior. The receiver is supposed to attend to the same object as the sender.

Manual pointing is conventional to some extent since one could imagine other ways of pointing such as gestures by head, shoulders or feet. Further, it is not clear if any object at all could be picked out without the object having been previously established as a possible referent through acts of reference or manipulation. So pointing, at least, presupposes conventionally available potential referents.

Thus, after a possible beginning as a spontaneous expressive reaction to external objects, 'proper' pointing eventually develops as a manipulatory action intended to make the receiver attend to something. As the child's social self-consciousness develops, he learns to interpret the pointing of other individuals and forms expectations about how they interpret his pointing. Thus, he becomes aware that pointing functions as a gestural sign for a certain manipulatory intention. If his awareness is shared by the individuals around him, pointing can begin to function as a conventional indicator of a certain manipulatory intention. We

can say that he is becoming aware of the mood of pointing. When this happens, pointing has developed from mere manipulation to a mood symbol. It can now be used to signal to a person that he should attend to something.

If the pointing gesture is a mood symbol, what about the object pointed to? This object is displayed. The pointing action as a whole can be described as a signal which has the conventional purpose of displaying some object.

We have already seen how vocalized behavior can replace pointing as a conventional symbol of display. See the quote above on Marta's sound *ayi* (section 13.4.2). We can then hypothesize that such symbolic vocal displaying eventually becomes more specified and that eventually the first cases of more purely referential naming appear. According to Bates et al. 1975, the appearance of referential naming seems to coincide with the onset of Piaget's sixth stage where the child is supposed to be able to form mental constructs to represent objects in his vicinity; see Piaget 1954. If this is correct the child's first vocalic attempts at referring to singular objects would be accompanied by some representing mental construct bound to the vocalic expression chosen by the child.

The function of these early acts of reference is to focus attention on some referent. This can be done representatively or non-representatively. Consider the following quote from Bates et al. 1975, 221 as an illustration.

'Between twelve and thirteen months, Carlotta begins to use a series of onomatopoetic expressions to 'name' the animals in her story books or among her toys. In Carlotta's case, the naming of dogs (*woo-woo*) cats (*mao-mao*), ducks (*qua-qua*) ... the conclusion that these behaviors constitute a true act of reference rather than a particularly clever imitation is supported by the fact that Carlotta generalizes them to recognize other dogs, cats ... For example, Carlotta is in the bathtub and her father hands her a rubber duck. As she reaches to take it, she says *qua-qua*.'

With utterances like *qua-qua* and *woo-woo*, one can not be sure whether they are acts of representative or non-representative display (section 7.4.2). The child could be uttering the sounds as much for their intrinsic qualities as to represent some other object.

Eventually, however, with sounds like Marta's *ayi*, the sounds will lose their inherent interest and become representative displayers. The connection between verbal symbols and what they represent will be arbitrary, for the most part, even though a natural connection might be retained in a few cases, like the ones above based on onomatopoetic iconicity. A sound that is used by a child to represent some object repeatedly, will, for the child, become a symbol involving a mental construct connected with that object, if he becomes aware that the sound is viewed as a representative sign of the object both by himself and the individuals around him. When this stage is reached, the child, via his mental constructs of objects, can begin to display objects conventionally. In other words, instead of pointing he can begin to refer to objects around him with linguistic means.

13.5 HOLOPHRASTIC UTTERANCES

Characteristically, the first vocalic signals of children can be used with many different expressive functions and manipulatory intentions, as in the quote above, where Marta uses

the word *ayi* both for pure reference (representation) and to indicate objects which she wants an adult to bring to her.

Many authors such as Bloom 1973 and Bruner 1974 have pointed out that a referential holophrase can be used to focus attention on some salient part of an action sequence. The child rather early seems to become conscious of some of the factors involved in action. He experiences himself as an agent capable of manipulating external objects and a little later as an agent capable of influencing other agents. He becomes aware that other agents manipulate objects and that he himself can be manipulated by other agents. He sees that manipulation takes place in different locations and that sometimes it is indirectly affected through some instrument.

Bloom 1973 therefore on the basis of her studies of the holophrase has claimed that children possess knowledge of deep case categories of the type discussed by Fillmore, 1968, i.e. agent, object, recipient of action, location, possession and instrument. This claim seems somewhat hasty to me, since what is involved seems to be the child focusing on those aspects of the world of which he is beginning to become conceptually aware, whilst taking for granted that the individuals around him share his awareness. In order to avoid confusion, I would, like Jespersen 1924, prefer to reserve the label case category for the completely language-dependent conceptual correspondents of overt case markers which a speaker possesses who speaks a language which conventionally marks case. It's very hard for me to see how the notion of case could otherwise be used coherently. The child would thus not possess case categories but only conceptual precursors for them which given appropriate linguistic stimuli could develop into a system of case categories.

However, many of Blooms observations seem quite valid to me as observations of the child's conceptual development as far as concepts related to action are concerned.

The child expresses his beliefs about the factors involved in action, in his own behavior, for example, in his efforts to regulate the behavior of others through vocal behavior, and also in his representational use of vocal behavior. The common type of representational holophrastic utterance thus seems to function in the following way: the child takes it for granted (*presupposes*) that the adult shares his awareness of a certain sequence of actions and the factors involved in it. One of the factors seems interesting or worthy of attention to the child. He wants to share this experience explicitly with the adult and therefore draws attention to it with a holophrase. The word uttered by the child will then function as a kind of pseudo-predication or comment on the context which becomes a kind of topic which the child implicitly assumes is shared by him and the adult.

Such implicit assumptions or presuppositions are one of the fundamental characteristics of human communication and remain so also in adult communication. Even though some of the presuppositions behind child language holophrase are made explicit in adult communication, other presuppositions, more important to the adult, are not, and remain implicit.

13.6 UNRAVELING OF PRESUPPOSITIONS AND DIFFERENTIATION OF BEHAVIOR

In fact, much of the learning process, both linguistic and of other types can be seen as a combination of 1) the successive unraveling of presuppositions with 2) a progression from mastering broad undifferentiated categories of behavior to mastering less broad more differentiated types of behavior. There is thus a certain parallelism in the development of 'knowledge-that' (unraveling of presuppositions) and 'knowledge-how' (differentiation of behavior). Very often an increase in 'knowledge-that' will be accompanied by an increase in 'knowledge-how'. As one unravels presuppositions one learns to master them.

As an example, consider the child's progression from vocal behavior intended to manipulate some other agent's behavior to reference and representation. In order to manipulate some adult's behavior with his vocal behavior, the child must presuppose that the adult is there to be manipulated. Manipulation presupposes somebody to manipulate. Only later the child learns to make this implicit reference to the adult explicit. This happens when the child learns to refer representationally. He has unraveled part of what was previously presupposed and learned to do explicitly what he previously did implicitly. It is worth noting that the same utterance that was used before to regulate can (see the function of Marta's sound *ayi* above) now be used to accomplish the new task - representation. The context which the child takes for granted is shared, clarifies what is being done. The utterance per se is not yet tied to any particular communicative activity. The activity is constituted in the context with its underlying assumptions.

So in this case the unraveling of presuppositions is not initially accompanied by a change and differentiation in behavior. However, in most languages it eventually is. The intention to manipulate is conventionalized in a special linguistic mood - the imperative. The unraveling of presuppositions has been codified by differentiation of behavior. The codified form, however, remains optional. If the context is thought sufficiently disambiguating by the speaker the old undifferentiated type of signal can always be used.

Even if no differentiating type of behavior is developed to support decontextualisation and presupposition unraveling, there is another way to achieve this goal. Speakers of a language (and also linguistic analysts) seem to identify linguistic expressions with their most context independent function e.g. nouns are coupled to reference. This process would, if it is a true characteristic of human concept formation and not just a part of linguistic analysis, provide economy in memory storage. It would also increase freedom of action by reification and separation through abstraction of different cognitive aspects from each other.

Finally, I would like to end this discussion of contextual dependence and presupposition by being even more metaphorical. However much we unravel, differentiate and reify the various aspects of human cognition and interaction, I think we will never touch more than the upper tenth of the iceberg. Cognition and communication will continue to be context-bound in ways which we have yet to uncover.

13.7 SUMMARY OF THE HOLOPHRASE

I will now give a brief summary of the discussion of the holophrase in the form of a table indicating some of the ways in which a holophrastic utterance of *daddy* could be used by a child.

1. Expression of emotion, attitude or need:
'I love daddy.' 'I want some warmth and sympathy.'
2. Manipulation of adult behavior:
'Daddy, bring me that toy.'
3. Ritualized interaction marker like greeting:
'Hi daddy.'
4. Representative display of a salient Point in a sequence of action:
'There is daddy.' 'The ball hit daddy.'

Thus from the very beginning, we note that a certain vocal sound can have many different intended uses, depending on what the child considers to be the context shared by him and the adult. In fact, the uses are many more. For example, it is not clear whether 1, 2 and 3 are just conventional behavior, acts of display, or signals. Neither is it clear whether 4 is an act of display or a signal.

In other words, the four uses mentioned here could easily be made into eleven. It is possible that some of the uses are differentiated by the child through intonation. But since I am aware of no study of intonation with regard to child holophrase, I will refrain from speculation.

In the next section we will try to disentangle some of these functions more systematically in order to give a hypothetical account of the sequence in which a child acquires his communicative skills.

13.8 A TENTATIVE TAXONOMY OF SOME OF A CHILD'S EARLY COMMUNICATIVE AND LINGUISTIC ABILITIES

Drawing on the discussion and the empirical material presented above, I would now like to present a summary of some of the at least analytically discrete communicative activities which one should be able to observe during the child's development into a full-fledged linguistic communicator. I will first present them grouped according to the communicative categories developed in chapter 7 and 9, and then speculate as to the temporal sequence in which they should appear. The account is in many ways rough and unfinished but can hopefully serve as a basis for future empirical work. Since I do not have any clear ideas about how to define my categories operationally (see footnote 65), I have also in this respect refrained from speculation.

Taxonomy

1. *Communicatively relevant indicative behavior*

A. *Expressive behavior*

Expressive vocalization as outlets for emotions, needs and desires. (Emotion is here taken in a less wide sense than in section 7.2.3).

B. *Manipulatory behavior*

Vocal and other behavior intended to manipulate another agent's behavior. This can be seen as an outgrowth of Piaget's fourth stage of sensory-motor development.

2. *Display*

A. *Display of behavior and objects*

Showing off to provoke laughter or other immediate reactions from surrounding adults. The child learns to display and point to external objects.

B. *Display of emotions, needs and desires*

2B probably comes as a natural outgrowth of 1B and 2A. The child notices how his actions affect another agent's behavior and also begins to form an awareness of how his actions affect the conscious apprehension of another agent.

3. *Signalling*

A. *Manipulatory signals*

3A probably develops out of 2B. The child does not only have assumptions about how his behavior is apprehended by those around him. He wants others to be aware of his awareness too. He wants them to notice that he has displayed his behavior in order to evoke certain reactions from them. In other words he has produced a signal with a certain content, e.g. a need or desire, or a certain manipulatory intention, e.g. the intention that the adult through apprehension of the content will produce behavior which will satisfy the needs and desires of the child.

B. *Signalling of content-matter*

3B builds on 2A. The child gradually forms more and more definite assumptions about how his actions are apprehended by others. Sooner or later he will not just intend other individuals to notice his actions, he will also with some awareness intend them to notice that he intends them to notice his actions. He will then indicate and represent the objects around him to other agents by signalling.

C. *Expressive and attitudinal signals*

As a special case of 3B representative signals, we have 3C expressive and attitudinal signals. The child is no longer representing external objects but his own emotions and attitudes. We have already mentioned expressive signals as presupposed for manipulatory signals. The child is aware that his smile will be taken by the adult as a sign of joy. Actually, it is easier to imagine feelings of joy and contentment than other psychological states as giving rise to the first expressive signals, since it would take quite an act of abstraction on the part of the child to divorce the expression of a need or a desire which was not pleasurable from the intention to bring about its satisfaction.

4. *Ritualized and conventionalized action*

A. *Conventionalized ritual interaction*

Gradually the child's interaction with other individuals becomes ritualized in certain ways. Some of the activities that are ritualized are vocal, like *kew*, in Bruner's example, when you give away an object, or *hi* when you meet somebody. Because of their conventional character these vocal activities can be used secondarily to display or signal, and can then function almost as conventional signs. But they are not symbols, i.e. when A greets B by uttering the word *hi*, he is greeting him and not displaying⁶⁷ or signalling his greeting to B. Thus a word like *hi* is not by convention a symbol of greeting but a conventional way to greet.

B. *Conventional manipulation*

A good example of a conventionalized manipulatory symbol is Marta's *mm* in section 13.4.2. It can be viewed as a conventional generalized mood indicator roughly meaning "Behave the way I want you to". Thus, it demonstrates the connection between a behavioral manipulatory intention and an expression of desire. Such conventional manipulatory intentions later become more specialized and develop into the various moods. The imperative is the clearest example since it, more or less, takes over the function of Marta's *mm* as a generalized manipulatory indicator, even though it is perhaps initially directed towards external behavior.

C. *Conventional expressive behavior*

After a while the child begins to ritualize his expression of attitudes and emotions too. As he becomes aware of how others apprehend his behavior, he can begin to display his emotions and begin to regard his own ritualized expressions as conventional expressions of emotions. He becomes aware that there are other conventional expressions of emotion than his own, like *ouch*, and later on also becomes conscious of such conventional features as mode for the expression of propositional attitude.

⁶⁷ The extent to which it is meaningful to speak of displaying a greeting is dependent on the extent to which a greeting can be deceptive, i.e. the extent to which there is a separable psychological state associated with greeting besides external behavior.

5. *Conventional display or signalling with symbols*

When the child is not only displaying some information but also intending that the information should be D-apprehended rather than just apprehended, he is signalling.

A. *Signalling with symbols of manipulation*

When Marta becomes aware that others also regard her *mm* as an indicator of manipulatory intention, it has become a signal. If it also becomes conventionalized it has become a symbol used as a signal. And as such it is the first of a series of mood indicators that the child gradually will learn. 5A is an outgrowth of 4B and 3A.

B. *Signalling with symbols of content-matter*

All symbols are representative, also those under 5A and 5C which represent manipulatory intention and expressive function. However, when I speak of signalling with symbols of content-matter here, I intend signals whose only manipulatory intention is D-apprehension, and whose only expressive function is to express an apprehension on the part of the sender. Further, it should be pointed out that the content-matter of such a signal could also be part of a signal with more elaborate manipulatory intention or expressive function. 5B is an outgrowth of 2A and 3B.

C. *Signalling with symbols of emotion and attitude*

The child is here not just expressing or displaying emotions or attitudes but intending them to be D-apprehended as well. In other words he is signalling them. If he does so with behavior or other objects which by convention are expressors of the attitude or emotion, he is signalling his emotions and attitudes with symbols. He will probably first learn to use words like *ouch* as signals and later the more sophisticated mode indicators of propositional attitudes.

In the next section, I will try to give an account in seven stages of how the communicative activities falling under the five categories we have discussed are sequentially related in the child's communicative development.

13.9 SPECULATIONS ON DEVELOPMENTAL SEQUENCE

13.9.1 HYPOTHETICAL DEVELOPMENTAL SEQUENCE

It is probably not very controversial to speculate that categories 1A and 1B constitute the first two stages in a child's communicative development. However, after that things get more difficult. As stage III, I propose the concurrent development of 2A and 4A. The child learns to display objects and he also becomes aware of ritualization and conventionalization. For stage IV, I suggest the development of 2B as a natural outgrowth of 1A, 1B and 2A, and 4B as an outgrowth of 1B, and a natural correlate of 4A. For stage V, I suggest 4C, since ritualization and conventionalization of otherwise spontaneous expressive behavior seems to me to require more motor control and awareness than

conventionalization of manipulatory and interactive behavior. As stage VI, I propose the concurrent development of 3A, 3B, 5A and 5B. The child would in stage VI be taking the step into signalling, which it seems to me would be considerably facilitated if he had manipulatory symbols and symbols of content-matter available. Stage VI can be seen as outgrowth primarily of 2A and 4B. Stage VII (5C and 3C) is the last stage which I consider here. The child will naturally go through many more stages after stage VII but they will involve more than the simple communicative skills that I want to consider. I regard stage VII as requiring more sophistication than stage VI for the same reason that I regarded stage V as requiring more sophistication than stage IV. Signalling of emotions and attitudes as compared with expressing or displaying them, even though it might be with conventionally regulated means, requires a significant increase in social awareness from the child. He must not just express or display, his emotions or attitudes in a conventionalized way. He must also intend that they should be D-apprehended.

The seven stages proposed here are summarized in the table below.

Summary of hypothesized developmental sequence of communicative activities

Stage I	Expressive manifestation (1A)
Stage II	Manipulatory manifestations (1B)
Stage III	Display of behavior and objects (2A) and conventionalized ritual interaction (4A)
Stage IV	Display of emotions, needs and desires (2B) and conventionalized manipulation (413)
Stage V	Conventionalized expressive manifestation (4C)
Stage VI	Manipulatory signals and signals of content-matter both conventionalized (5A), (5B) and unconventional (3A), (3B)
Stage VII	Expressive and attitudinal signals both conventionalized (5C) and unconventional (3C)

13.9.2 THE HOLOPHRASE AND COMMUNICATIVE DEVELOPMENT

I now want to connect my earlier remarks on the holophrase with what has been said here about communicative activities and how they develop. At every stage, except maybe stage I, the child relies on shared assumptions and presuppositions to accomplish his communicative purpose. Conventionalization never severs the content of behavior completely from reliance on shared presuppositions (see section 3.3), even though it does sever it from actual sender meaning and apprehended significance. Actual communication will always depend primarily on actual sender intentions and assumptions about shared background, and on what the receiver actually apprehends on the basis of his assumptions about shared background. This will be the case, no matter what the conventional content of the behavior or object used for communication indicates. The holophrase, whether it has conventional content or is just an unconventionalized signal, or act of display, is a particularly salient example of presupposition-dependence as far as all aspects of its meaning go. It is dependent on presupposition for apprehension of content-matter, content-quality, manipulatory intention and expressive function. Even if linguistic utterances eventually get much more complex and sophisticated when it comes to explicit presupposition unraveling, they retain their presupposition-dependence in all the basic

respects that were present in the holophrase. The intended and apprehended content of a linguistic utterance is always the value of a function that as its most important argument has shared presuppositions and the utterance itself with its conventional contents where in extreme cases the conventional content can be neglected. (See sections 10.4.2, 10.5 and 10.7.4).

Finally, it should be noted that in this chapter I have only written and speculated about the child as a sender. A serious defect of the account, besides its lack of really thorough empirical support and operationalized concepts is, therefore, that there is no treatment of the child as a receiver. Obviously, studying the child as a receiver would meet with even greater empirical difficulties than studying him as a sender. But it is clear that no satisfying total picture of a child's communicative development can be gained without an attempt at such a study.

14 COMMUNICATIVE ACTS

A communicative act is an action by which a sender intends to display or signal information to a receiver. Many communicative acts are effected through verbal behavior. This has led some authors, e.g. Searle 1969, to propose that so-called speech acts be regarded as the fundamental units of human communication. However, if one considers the kinds of activity that Searle regards as speech acts, e.g. *warning, admitting, threatening, stating, denying, begging*, one notices that many of them are not necessarily connected with speech. One can warn or admit non-verbally. Therefore, I prefer the term *communicative act* instead of the more restricted term *speech act* in order not to imply that the act of communication is necessarily verbal or, for that matter, conventional. See also the end of section 14.4.6.

14.1 THE FELICITY CONDITIONS OF A COMMUNICATIVE ACT AND THE APPLICATION CRITERIA OF A COMMUNICATIVE ACTIVITY TERM

14.1.1 GENUINENESS, COMPETENCE, ADEQUACY, ETHICALNESS, CONVENTIONAL CORRECTNESS AND SUCCESS

We will now summarize some of the discussion in chapters 7 - 9 by considering the conditions or requirements a communicative act should meet in order to be felicitous, i.e. the *felicity conditions* of a communicative act.

Felicitous is here taken to include all the expectations we ideally have on a certain communicative act. A felicitous communicative act is performed according to the norms of normal rational agenthood and ethical consideration, its manner of performance is conventionally correct (for acts governed by convention) and its purposes and intentions are achieved.

Accordingly, we will distinguish between the following types of felicity conditions: genuineness conditions, competence and adequacy conditions, ethical conditions, conventional correctness conditions and success conditions.

A communicative act is *genuine* to the extent that it is voluntary and intentional and to the extent that a sender really possesses the motives, i.e. psychological states, which the action 'normally' according to convention or the principles of normal rational agenthood should express. For example, genuine apologies correspond to regret and genuine questions correspond to a state of curiosity. Thus, a genuine communicative act should be voluntary and properly motivated, i.e. not be induced by external force and always have the expressive function it is supposed to have. We will refer to this last part of genuineness, i.e. motivation, as the *sincerity condition*.⁶⁸ Note that we are not requiring that a

⁶⁸ The term is taken from Searle 1969, 60, who uses it in essentially the manner indicated here.

communicative act have as its only motive the motive which makes it genuine. A question can, e.g., be genuine but still be intended to tease someone.

A communicative act is *competent* (section 5.1.3) to the extent that it is undertaken under circumstances that make achievement of its purpose possible. It is *adequate* to the extent that its performance is efficient and relevant in order to achieve its purpose. It is *ethical* to the extent that it is undertaken under ethical consideration of the receiver (section 5.2.3). It is *conventionally correct* to the extent that its manner of performance is in accordance with the restrictions of manner imposed, for example, by phonology, morphology and syntax, and to the extent that it meets conventional requirements of *contextual appropriateness* (see section 10.2.2). Baptism within the Lutheran religious community is e.g. ideally conventionally appropriate only when performed in a church by a properly ordained minister.

A communicative act is *successful* to the extent that it evokes those reactions in a receiver that it was intended to evoke. A D-apprehended question is e.g. more successful than a question that was not apprehended at all, and an answered question is more successful than one that was merely D-apprehended. Full-blown communication could thus be described as a signal that is successful to the extent that its intended content is D-apprehended. In general, the success of a communicative act depends on the extent to which the manipulatory purposes that were connected with the act were achieved.

It might be argued that a communicative act which is not apprehended is not a communicative act at all, rather than an unsuccessful communicative act. I disagree with this argument for two reasons:

1. As argued in section 2.5, it seems desirable to identify a certain type of behavior as a certain action, through the intentions and purposes connected with the behavior, whether they were achieved or not. Making receiver apprehension a necessary identity criterion of communicative acts, would thus, in my opinion, have the consequence that we could not identify an action, or more especially, a communicative act before knowing its result.
2. Some communicative acts, such as questions and requests, are connected with conventional modes or moods, or, in the case of institutionalized performatives, with special contexts. Their conventional status, and, in the latter case, force, need not in any way be connected with receiver apprehension, i.e. a question in correct interrogative form conventionally remains a question whether it is apprehended or not.

14.1.2 APPLICATION CRITERIA AND TRUTH CONDITIONS

Most descriptive terms of a language can be associated with *application criteria*, i.e. criteria or conditions that determine to what phenomena the terms in question can be correctly applied.

We will now consider the relationship between such application criteria of verbs designating communicative activities and the felicity conditions of the activities which they designate.

In general, one can say that the application criteria of a communicative activity verb require that a subset of the felicity conditions of the activity in question are met. For example, to correctly apply the label *question* to an utterance, it would be sufficient that the utterance was constructed in the interrogative form according to the linguistic conventions of a certain language. It does not have to be successful, i.e. D-apprehended, answered, or genuine.

Alternatively, following the linguistic conventions for the interrogative is not necessary, since one can question through facial expression or manual gestures or by stating something which one, through contextual presuppositions, must clearly be assumed to be doubtful about. Consider (37):

(37) O.K., so I'll buy the car

(37) could be uttered in a context where A and B have discussed the wisdom of a car purchase and A wants to reassure himself of the best course of action. One might think this would be marked by a special intonation feature in ordinary discourse and that linguistic conventions would therefore have a more rigid grip on communicative activities than the example would otherwise suggest. This could well be the case. However, I strongly suspect, upon considering some of the data on speech recognition (Woods 1975 and Woods 1976), that intonation does not disambiguate to quite the extent that has sometimes been suggested. On the contrary, pragmatic factors such as presuppositions of the kind considered here seem to determine the auditive interpretation given to a certain acoustic input. Thus, if there is an intonation difference, which is not certain, it could be part of a receiver's cooperative auditive reconstruction of the sender's message on the basis of presuppositions assumed to be shared.

Thus, as with many other terms, communicative activity verbs are related to a cluster of application criteria corresponding more or less to the felicity conditions of communicative acts. Often, one felicity condition is on its own sufficient for the correct application of a given communicative activity verb, but very often no proper subset is necessary for the application. Rather than there being certain necessary felicity conditions, there seems to be a core of more prototypical or central conditions which serve as a guideline for the application of a term, but which are not completely necessary. For studies of concepts along these lines, see Berlin & Kay 1969, Rosch 1973 and Fillmore 1975. Rather than there being any special subset of felicity conditions which is necessary, necessity seems to be disjunctive, i.e. the application criteria require that some subset (no matter which) out of the total disjunction of felicity conditions be satisfied.

The reason for the open structure of the application criteria is that the concept of action in ordinary everyday language is unspecified with regard to which of its felicity conditions are to be regarded as identity criteria. Our stipulation in chapter 2 - that actions be identified in terms of intentions and purposes - is not always followed in everyday language. Sometimes, actions are instead identified in terms of results or conventional features of behavior. See further sections 14.3, 14.4, 14.5 and 14.6.

Communicative activity terms inherit the unspecificity connected with the everyday concept of action. Their content can be specified along the same dimensions as our everyday concept of action. I prefer to call these terms unspecified rather than homonymous, since I do not think it is a question of several different contents that happen to coincide in auditive or graphic form. Instead, I think it is a question of specifying various aspects of a rather nebulous whole in relation to different purposes at hand. Furthermore, this is not a feature of communicative activity terms only, but something which I believe to be true of the application of most descriptive terms.

The application criteria of a communicative activity term are relevant also to the *truth conditions* of an assertion claiming that the activity in question has taken place. Truth conditions tend to derive from the same prototypical sufficient but non-necessary felicity conditions as application criteria.

(38) A asked B a question.

For (38) to be true, it is neither necessary that A is asking a genuine question nor that B D-apprehends or answers the question. Nor, for that matter, that A utters what could be classified as a question according to linguistic convention. (38) would be true if A signalled a question unconventionally and B D-apprehended his signal. Thus, truth conditions as well as application criteria are related to subsets of felicity conditions which provide sufficient conditions for correct application of a communicative activity term or for the truth of an assertion about a communicative activity.

14.2 THE PERFORMATIVE HYPOTHESIS

The correspondence between felicity conditions and application criteria, and the truth conditions of a statement claiming that a certain action has been performed, is probably the basis for the so-called performative hypothesis expounded by generative semanticists like Ross 1970 and Sadock 1974.

(39) Doris states, 'It is raining'.

A sentence like (39) is true iff Doris states '*It is raining*'. This relationship between an action, i.e. a signal, and the truth conditions of a descriptive statement claiming that action has taken place, seems to have led Ross and Sadock to believe that an abstract feature of the signal, i.e. its signal-content, should, as its 'syntactic deep structure', have the description itself. The arguments given for this position mostly depend on the fact that certain syntactic traits of the conventional manner of presentation of the signal-content, like the presence of reflexive pronouns or the non-occurrence of first or second person pronominal forms, seem to be triggered by the sender's reflexive expectations concerning shared beliefs and assumptions, rather than by other syntactic traits. Cf. the following sentences from Ross 1970, 228 and 237.

(40) This paper was written by Ann and myself.

(41) A friend is going to drop by.

(42) A friend of mine is going to drop by.

In (40), the reflexive pronoun *myself* should not occur, according to Ross, since there is no noun which could trigger reflexivization within the same sentence. Ross therefore postulates that there is such a noun in the deep structure - a performative subject which is deleted by an optional transformation. Likewise, the synonymy of (41) and (42) in certain contexts is explained in this manner. Cf. Ross 1970,237: '*of*-phrases after nouns like *friend* delete if the NP in the phrase is identical to some higher NP /in an underlying structure/' (my addition).

Thus, sentences like (40), (41) and (42) are supposed to necessitate the existence of some kind of deep syntactic entities. There is no necessity for such an assumption. It seems more natural to assume that the syntactic arrangement of a sentence is an instrument which is sensitive to the speaker's assumptions about shared presuppositions and beliefs. A necessary and in some cases sufficient requirement for the use of 1st and 2nd person pronouns without explicit antecedents is that their antecedents are contextually salient. Likewise, 1st and 2nd person pronouns can be totally left out in certain situations, since the reference to the speaker is so salient to both speaker and listener that it would be a violation of the principle of adequacy both in its individualistic and considerate forms to bother to make that reference explicit in symbolic form.⁶⁹

Such salience can be achieved either extralinguistically as in sentence (40), or intralinguistically as in (43) below, where we see that the triggering noun does not have to be in the same sentence as the reflexive pronoun.

(43) John read a book. The book was written by (Bill and) himself.

Contextual salience is a necessary requirement for all pronominal reference. It is therefore really only sufficient as an explanation when the choice between no pronoun at all, a personal pronoun, or a reflexive pronoun is semantically of no importance. This is, of course, not always the case. Compare (44).

(44) Bill mended the car himself
+him

Contextual salience is, therefore, insufficient as an explanation of the differences in occurrence between the different pronouns. It only supplies one of the necessary ingredients for the occurrence or non-occurrence of a pronoun. The other ingredients, I personally would prefer to seek in the semantics of pronouns, rather than in postulated syntactic relationships and abstract entities.⁷⁰

Further, since content in general is dependent on the sender's reflexive assumptions about the receiver, it should not surprise us that certain syntactic traits of its manner of presentation also are. At least, it should not make us think that a descriptive statement claiming that a certain communicative action has taken place is a deeper version of the

⁶⁹ This is a fact that seems to have been totally neglected by Basil Bernstein in his discussion of the restricted and elaborated codes. See Bernstein 1970.

⁷⁰ For an interesting study of the semantics of reflexive pronouns, see Edmondson and Plank 1976.

syntactic traits of the manner of performance of the action which is claimed to have taken place.

It seems to me to be a case of misguided ontological purism to believe that all syntactical phenomena have to be explained by other syntactical phenomena. There is nothing incoherent in imagining pragmatic constraints and triggers for syntactic rules. For a very interesting discussion and demonstration of this, see Gazdar and Klein 1976. If anything, at least if one is somewhat concerned about ontological parsimony, it seems a much sounder position to take.

14.3 ORIENTATION, INTENTION AND REACTION

14.3.1 THE SENDER- OR RECEIVER-ORIENTATION OF AN ACTION

The central locus of the application criteria for some communicative activity verbs pertains to the sender and his intentions; the locus of other communicative activity verbs pertains to the receiver and his reactions, while a third type includes both sender-intentions and receiver reactions in its central locus. I will refer to the first type of communicative activity verbs as *sender-oriented*, the second type as *receiver-oriented* and the third type as *sender and receiver-oriented*.

Signal and *display* are sender-oriented activity verbs. In order to truly say of an agent that he is signalling or displaying, i.e. in order to satisfy the application criteria of *display* or *signal*, he need only have a specific type of intention concerning his behavior. However, the success conditions for displaying require that the receiver actually apprehends the display-content, and for signalling that the content is actually D-apprehended.

Thus, the application criteria of *display* and *signal* are centrally sender-oriented but the felicity conditions of an act of display or signalling include both sender and receiver-orientation.

Scare is a communicative activity term whose application criteria are centrally receiver-oriented. If A behaves in a way that makes B afraid, we say that A has scared B. This will hold even if A has not at all intended B to react in this way. Suppose, for example, that A is engaged in target-practice with his gun with the intention of learning to shoot and happens to scare B, who is passing by. This means that scaring requires no communicative intention on the part of the sender. It can be an unintentional activity, not even an action. It can take place reflexively through influence without initial conscious apprehension since the only thing that counts is whether a state of fear has been evoked in a receiver. Thus, scaring requires no communicative intention on the part of the sender. The orientation of a communicative activity will be reflected in the application criteria of a term designating the activity. If a term is receiver-oriented, the application criteria will require a reaction in the receiver. If it is sender-oriented, they will require some type of communicative intention from the sender.

However, there is nothing to prevent a sender-oriented term from being connected with an activity the success conditions of which require some type of reaction from the receiver.

14.3.2 A TEST FOR INTENTIONALITY AND RECEIVER REACTION

Let us now consider the case where A intends to scare B but no state of fear is evoked in B. It would be incorrect to describe the situation by the sentence *A scared B*. This is true even if we add a phrase like *but this had no effect* on B, which is possible with a communicative activity term like *warning*, which is in at least one of its specifications centrally sender-oriented in its application criteria (see, however, 14.3.3, ex.(51)).

(45) A warned B repeatedly but this had no effect on B.

(46) A scared B repeatedly but this had no effect on B.

(46) more or less amounts to a contradiction. It is not possible to be scared and not affected. We can thus regard the phrase *this had no effect on X* as a test phrase for whether a communicative activity verb is primarily sender or receiver-oriented as regards its application criteria. If we add the phrase to a sentence which predicates a communicative relation of a sender and a receiver, and get a sentence which smacks of contradiction, we have a receiver-oriented activity verb. If the result is perfectly acceptable, we have a sender-oriented activity verb.

Conversely, we can test sender-orientation and intentionality by adding the phrase without *intending to*:

(47) A warned B repeatedly without intending to.

(48) A scared B repeatedly without intending to.

We see that our analysis of scaring is confirmed: no intentionality is required from the sender. We feel much less sure about *warn*. Perhaps there is a way to warn without intending to. If we want to construct an acceptable sentence with *scare* and the test phrase for receiver-reaction, we must predicate an intentional activity of the sender in the following manner:

(49) A tried to scare B but this had no effect on B.

Now, what is predicated of the sender is not scaring but attempting to scare, which is an intentional sender-oriented activity which does not have to affect the receiver in the least. In the framework elaborated earlier, it would be classified as an act of display, or a pure manipulatory action, all depending on whether the sender had intended that the receiver should initially consciously apprehend the information intended to evoke fear in him, or whether fear was to be evoked in him without his initial conscious apprehension of the information.

Thus, the application criteria will differ for *scare* and *attempt to scare*. In the first case, the receiver's reaction is essential, but in the second it is not. There, what matters is the sender's intentions. One attempts to scare intentionally, but one scares intentionally or unintentionally by getting a receiver into a state of fear. In the same manner that *try* adds intention, the adjective *unintentionally*, of course, removes it. Consider (50).

(50) A unintentionally scared B

14.3.3 THE COMMUNICATIVE STATUS OF THREATENING

We will now provide some exemplification of the framework developed above through a discussion of scaring in relation to threatening.

If B thinks that A has displayed an action in order to scare him, we will say that B *feels that he has been threatened*. If he actually becomes afraid, he is also scared. If B just notices that A is trying to scare him but does not actually become afraid, he is just aware of being threatened but is not scared. Thus, *feeling that one has been threatened* is an example of D-apprehension. A receiver's D-apprehension can, but need not, correspond to an actual signal from a sender. A receiver can imagine things. So, in order to say that B feels that he has been threatened, we require that B should think that A has displayed an action with the intention of scaring B, but not that A actually did so.

In order to determine the application criteria of *threaten*, we consider sentence (51) below:

(51) Marvin threatened Priscilla repeatedly, but this had no effect on her.

I want to claim that (51) has two specifications: one totally sender-oriented and one sender and receiver-oriented specification. In the first specification, (51) is perfectly acceptable, but in the second reading, it is contradictory. This analysis also applies to *warn* in example (45) above.

In the sender-oriented specification, (51) is true iff Marvin signalled his intention to scare Priscilla to her. No reaction is required from Priscilla. However, in the sender and receiver-oriented reading, Priscilla must actually have D-apprehended Marvin's intended signal content and become scared.

Thus, 'sender-oriented threatening' is a signal. It involves only a sender and an intention to second-order display. 'Sender and receiver-oriented threatening' on the other hand, is a full-blown communicative activity. It requires both an intention to signal from the sender, and at least D-apprehension of the intended signal-content from the receiver. There is also an even stronger reading of *threaten* corresponding to the success conditions of an act of threatening requiring the receiver actually to become afraid.

Threaten, thus, differs from *scare* in having two sets of application criteria both of which are different from those of *scare*, one set is asymmetrically sender-oriented, the other is oriented towards symmetrical communicative activity, while the criteria for *scare* are only asymmetrically receiver-oriented.

I am unsure whether there is also a third purely receiver-oriented specification of *threaten*.

(52) Marvin threatened Priscilla repeatedly, without intending to.

At least to my intuitions, (52) seems a little strange.

In the following sections, we will show that the differences in communicative status that we have found between the various activities related to scaring and threatening can be

generally used to classify the communicative status of communicative activity terms and thus, I believe, probably also of the communicative activities which correspond to the terms. I say *probably*, since data provided by linguistic expressions should only be regarded as guidelines for more basic semantic and phenomenological intuitions.

There is another consequence of moving from scaring to threatening that might be worth elaborating. If a receiver infers that the sender is displaying content which is intended to make him afraid, he will look for a reason why the sender is displaying content intended to evoke fear in him rather than just scaring him straightforwardly. One such reason could be that the sender intends him to connect the unpleasantness which would be caused by a fear with some earlier action performed by the receiver which has caused the sender unpleasantness. Moving from scaring to threatening thus increases the sender's possibilities of manipulation of the receiver and also increases the amounts of information he can expect to convey to the receiver

14.4 THE SEMANTIC FIELD OF COMMUNICATIVE ACTIVITY VERBS

In ordinary language, there are a host of terms denoting various aspects of communicative acts. One could say that there is a *semantic field* (cf. Trier 1931) of communicatively relevant activity verbs. I want to suggest that some of the semantic parameters that underlie this field are precisely the same factors that determine the nature of communicative activities, such as intention, manipulatory purpose, actual effect on the receiver, motive etc ... If this is correct, I take it as support of the analysis provided earlier of communicative activities, since I believe that the fact that a certain phenomenon has become codified in ordinary language shows that the phenomenon is phenomenologically real, i.e. that it plays a role in ordinary common-sense understanding of communicative acts. I will therefore illustrate the various aspects of communicative acts by giving an analysis of a number of verbs related to the oral production of sound with communicative intent. The limitation to communicative activities related to orally produced sounds is meant to have no theoretical importance, but is a matter of practical feasibility.

In sections 14.4.1 and 14.4.2, I will discuss verbs which are oriented towards the instrumental parameters of a communicative act. In sections 14.4.3, 14.4.4 and 14.4.5, I will discuss orientation towards expressive function and in 14.4.6 orientation towards the purposive plan and receiver reaction. Finally, in sections 14.4.7 and 14.4.8, I will discuss orientation towards conventional contextual features.

The study has a double purpose. Firstly, to analyze the semantic field of communicative activity verbs, and secondly, to study the activities designated by the verbs in order to become more aware of the nature of communicative acts as such.

14.4.1 SOME OF THE INSTRUMENTAL PARAMETERS

Each communicative act is connected with an instrumental plan which is intended to realize its purposive plan (section 2.5.2). Communicative acts are also connected with motives and reasons (section 2.2). They are connected with intentions and behavioral dispositions (section 2.4.1). Plans and intentions are not always fully conscious. Sometimes

they only become conscious upon frustration (2.4.1). Further, communicative acts are connected with purposes and actually achieved effects (2.4.2).

The instrumental plan of a communicative act concerns the *manner* of performance. How should the various aspects of the communicative act be organized in order to realize its purposive plan? The instrumental parameters are of many kinds. For communicative acts dependent on oral sound, they include the phonetic, syntactic and semantic organization of the act, and the coordination and interrelation of these parameters according to convention and the norms of adequacy and competence. We will now consider some of the communicative activity terms of ordinary language which relate directly to this instrumental aspect of the communicative act.⁷¹ Many of the activities denoted are not usually actions, i.e. intentional, but very often occur as mere unintentional behavior.

The five categories proposed below have a number of defects. First, they are not mutually exclusive since they concern aspects of the instrumental plan of one and the same communicative act, rather than identifying characteristics of different communicative acts. Second, the relation between instrument and purpose is problematic since it is relative to level of abstraction. What is an instrument on one level is a purpose in relation to another level. Semantic planning in terms of foregrounding and backgrounding is, for example, instrumental in relation to the presentation of the original, intended content. However, in relation to the phonetic and syntactic level, they are the purposes which are to be realized by phonetic and syntactic instruments. Thus, there is really no rough and ready distinction between instrumental and purposive plan. Rather, there is a hierarchy of intentions, where those at the top of the hierarchy are the most purposive and those at the bottom, closest to actual behavior, are the most instrumental.

1. *Phonetic*. Whistle, whiz, whoop, yak, yell, yelp, bark, bay, bellow, mutter, fizz, gasp, holler, sing, buzz, shout, scream, neigh, chant, clamor, cough, croak, gobble, grunt, guffaw, growl, gulp, lisp, purr, quack, roar, foam, intone, shriek, zip, slobber, smack, sneeze, sniff, snuffle, snivel, snore, snort, sough, trill, twang, twitter, titter, howl, honk, vociferate, wheeze, articulate, cackle, cry (loud voice), clamor, murmur.
All these are pure sound-activities, that according to Webster, could be produced orally by a human being. As we see, they are not necessarily verbal, but include any sound-production that could be used in acts of display or be indicative to a receiver.
2. *Syntactic*. State, assert, question, order.
These activities are associated with syntactic modes and moods. They are by preference associated with the indicative, interrogative and imperative forms. However, the association is not necessary, at least not for questions and orders, since one can question and give orders without using the interrogative or imperative form. I am unsure about whether one can assert or state without using the declarative form. Possibly rhetorical questions can function as nondeclarative statements.⁷²
3. *Semantic*. Attribute, refer, allude, predicate, focus, highlight, imply, background, foreground, relate, presuppose.

⁷¹ All the terms given are taken from *The New Merriam Webster Pocket Dictionary* 1964.

⁷² For this suggestion I am indebted to Thomas Wetterström.

All these activities have to do with the organization of content. Possibly, *background* and *foreground* should have been left out, since they are not yet very common in everyday language.

4. There are also a number of terms to indicate *lack of phonetic, syntactic or semantic organization*: Gab, babble, jabber, clatter, prattle, gibber, rave, slur, stutter, stammer.
5. Further, there are a number of terms the application criteria of which require that the communicative activity be *verbal*, i.e. involves conventional content: say, speak, talk, announce, whisper, rant, shout, pronounce.

The last four verbs could also perfectly well have been placed in group 1 above.

14.4.2 INSTRUMENT, CONVENTION, ADEQUACY AND COMPETENCE

The various instrumental parameters of verbal action are determined by such factors as biological restrictions,⁷³ convention, purpose, adequacy and social competence.

Conventions enter the picture chiefly with regard to acts of verbal communication. Their manner of performance is governed by convention mainly regarding phonological, semantic, morphological, syntactic and discourse structure. Given a certain communicative purpose and a certain signal content, phonological conventions restrict the degrees of freedom with regard to the manner of articulation needed to produce the sounds of the signal vehicle. Semantic conventions restrict the number of ways in which the content can be structured, and morphological, syntactic and discourse structure conventions restrict what symbols can be selected and the manners in which they can be structured and combined in order to effectively signal a certain content and content structure.

But adequacy and competence also enter the instrumental plan. The content should be signalled in the way that most adequately allows for efficient receiver reconstruction and apprehension of the content. The clues provided by the signal vehicle as to what content is signalled should not give the receiver too little, or too much (redundant) information, i.e. presuppose too much or too little. The clues should be effectively organized and distinct and not slurred and disorganized, and they should be relevant to the purpose and content at hand. This is not guaranteed by merely following conventions, since sometimes conventions can be chosen and correctly followed which are irrelevant to the purpose and content at hand. There are many books which contain grammatically well-formed sentences, the adequacy and relevance of which are very uncertain.⁷⁴

It is the sender's competence which enables him to know what adequately conveying information to a certain receiver entails; what he can presuppose as shared by him and the receiver and what he cannot presuppose as so shared. It also determines what instrumental parameters he thinks it is possible to use in a certain situation. Thus, we can say that it is a

⁷³ For a very interesting discussion of such factors, see Lenneberg 1967.

⁷⁴ Unfortunately, the present thesis is probably not an exception in this respect.

sender's competence and adequacy in conjunction that determine to what extent he is able to live up to the standards of Karlfeldt's principle⁷⁵ and cooperative ethical consideration, and to avoid the pitfalls of sparse insufficient communication or boring, oversufficient communication.

14.4.3 EXPRESSION OF EMOTION

We have earlier tried to show that actions in general and communicative acts in particular are normally motivated, i.e. have an expressive function (section 7.2.3). Some communicative activity verbs in ordinary language codify this expressive function in conjunction with a certain manner of performance. Some of the activities listed above under Phonetic manner also have this character, but not as clearly as the verbs listed below. Some verbs are listed several times since the emotions or attitudes expressed by the activities they designate are not mutually exclusive. Further, I am not separating verbal from non-verbal expression of attitude and emotion.

*Expression of emotion*⁷⁶

Fatigue: yawn, sigh.

Discontent: bicker squabble, curse.

Sorrow: wail, weep, bemoan, sigh.

Fear: tremble, shiver, shudder.

Insecurity: giggle.

Contempt: sneer.

Hostility: growl, attack, curse.

Rage: Snarl, curse.

Distress: whine, whimper shiver, shudder, wail, ululate, yammer, cry (tears).

Joy: laugh, smile, snicker, giggle, chortle.

14.4.4 EXPRESSION OF ATTITUDE

A number of communicative activity verbs denote communicative activities which are typically motivated by certain attitudes (see also section 5.1.3 - the principle of motivated action). In some cases the connection between communicative activity and attitude is very clear, in others more doubtful, e.g. below I claim that one irritates someone else because one is irritated. But it is obvious that other attitudes could also motivate acts of irritation. Thus, I claim no significant theoretical status for the list below. It is pretty unpolished and would probably be considerably changed, if one took time to analyze the individual communicative activities a little more thoroughly. The list is by no means exhaustive and as before contains several overlapping categories. Further, in the list, I have not bothered to separate cognitive from emotive and evaluative components in an attitude, i.e. an attitude like dislike, besides an emotive component, involves a cognitive component of belief in the existence of some phenomenon.

⁷⁵ See footnote 60.

⁷⁶ I am here using *emotion* in the wide sense of section 7.2.3.

Expression of attitude

Belief: state, assert, claim, advise, admonish, adumbrate, advocate, allege, answer, argue, aver, avouch, agitate, boast, claim, confirm, characterize, counsel, convince, comment, confess, confide, contend, describe, diagnose, disclose, discourse.

Weak belief: suggest, conjecture, guess.

Curiosity, wonder and doubt: ask, consult.

Disapproval: condemn, chide, censure, deplore, decry, debunk, defy, disapprove, denounce, deprecate.

Dislike: accuse, blame, damn, denounce.

Regret: apologize, deplore.

Intention to aid: advise, counsel.

Being impressed: acclaim, compliment.

Desire: request, order, beseech, beg, command, convoke, decree, demand, dare, dictate.

Discontent: challenge, complain.

Agreement: agree, admit, affirm, assent, aver, consent, concur, concede, confirm, corroborate.

Irritation: annoy, irk, irritate.

Disbelief: criticize, contradict, correct, object, dispute, deny, debunk, defy, demur, discourage, disagree, disavow, dissuade.

Assurance: assure, certify.

Altruism: congratulate, credit.

Malevolence: belittle, disparage, ridicule, disregard, deride, intimidate.

Pity: commiserate, condole, console, comfort.

Like: commend, recommend.

Superiority: condescend.

Act of inference: conclude, imply, deduce, infer.

Contradictory beliefs: confuse.

Intention to act: decide.

Unwillingness: decline.

Gratefulness: thank, dedicate.

Insecurity: defend.

Act of deliberation: calculate, deliberate, consider.

Social power: demote, command, decree, convict, capitulate, appoint, authorize, bequeathe.

As has been noted in footnote 67, deception is in an essential way connected with expressive function. The usual form of deception is by conventional means or through expectations about receiver assumptions based on naturalness or normal rational agenthood, to give a receiver reason to believe that a certain psychological state is being expressed when, in fact, it is not. One can, for example, state without believing what one states, or one can apologize without feeling regret. Such behavior is deceptive and thus not ethically considerate, since, by giving the receiver incorrect information, it can prevent him from being a competent and adequate agent.

14.4.5 THE STATUS OF ATTITUDE TERMS

Attitudes can be expressed and described in several different ways in everyday language. Either the attitude is left implicitly tied to the description of a communicative act, or one

implies the occurrence of a communicative act by describing the expression of an appropriate attitude, or, finally, a certain communicative act can be implied, simply by claiming that a certain individual possesses the attitude that is normally manifested by a certain communicative act. Compare the (a), (b) and (c) sentences in (53), (54) and (55) below.

- (53a) Bill stated that it rained
- (53b) Bill expressed his belief that it rained
- (53c) Bill believed that it rained
- (54a) Bill apologized for being late
- (54b) Bill expressed his regret for being late
- (54c) Bill regretted being late
- (55a) Bill asked if it had rained
- (55b) Bill expressed curiosity as to whether it had rained
- (55c) Bill was curious as to whether it had rained

Very often, in everyday language the (a), (b) and (c) sentences can be used synonymously. In fact, sometimes a description of the (c)-type is homonymous between designating a communicative activity or designating an attitude. A test for such homonymy can be obtained by using the concept of deception. Consider the following sentences:

- (56) Bill agreed to help Sally, but he deceived her and did not really agree to help her at all
- (57) Bill approved of Sally's proposal, but he deceived her since he really did not approve at all
- (58) Bill detested Sally's behavior, but he deceived her since he did not really detest it at all

The possibility, for at least some speakers, of adding the cancelling clause without contradiction in (56) and (57) shows that we have a genuine ambiguity. There is an external behavior which by conventional or naturally normal, rational ties can be classified as approval or agreement, and there is no necessity for that behavior to correspond to an actual attitude of agreement or approval. But the awkwardness of (58) shows that *detest* does not quite make it into this category. For the first clause of (58) to be true, Bill has to genuinely detest Sally.

14.4.6 THE PURPOSIVE PLAN AND MANIPULATORY INTENTIONS

It is characteristic of the purposive plans of communicative acts to be manipulatory, i.e. intended to evoke a reaction in a receiver. Some of the communicative activity terms in ordinary language require for correct application that such a reaction actually has been evoked. We will call these *evoked reaction terms*. Examples of such terms are:

Annoy, appease, amaze, appall, baffle, impress, bore, convince, discourage, dumbfound, disgust, embarrass, frighten, fool, force, harm, hypnotize, horrify, hurt, inconvenience, infuriate, irk, irritate, plague, prevent, persuade, startle, surprise, terrorize, torment, upset, compel, confuse, offend, dismay.

The application criteria of these terms do not require any intentional activity from the sender aimed at evoking the relevant reactions. In fact, if one adds the prefix *feel* as in *feel annoyed*, no sender activity need have taken place at all, since it is possible to have feelings without any direct external stimulation. Thus, evoked reaction terms are completely receiver-oriented. A certain type of receiver reaction is both sufficient and necessary for their application. The application criteria of such terms are thus identical to the success conditions of the activities they designate.

But also communicative activity terms whose application criteria require more intentional activity are connected with manipulatory intentions. These have a weak and a strong form. In their *weak form*, they aim at mere apprehension and in their *strong form*, they aim at some further reaction besides apprehension. In fact, we have seen in chapter 11 that if a communicative activity is to be ethical, it should never be incompatible with its purpose that a receiver merely apprehends the communicated information and then on rational grounds rejects it. We have to qualify the rejection in this way, since the receiver would be inconsiderate of the sender if he just rejected the information flat for no reason at all. An ethical communicator should, therefore, never have only strong manipulatory intentions. This does not mean that a sender can not have strong manipulatory intentions, only that they should always be combined with weak ones.

Since the weak manipulatory intention is the same for all acts of display and for signals, we will instead consider some of the kinds of receiver reactions at which the various strong manipulatory intentions, connected with certain communicative activity terms, aim.

Manipulation intended to evoke:

unspecified emotion, attitude or behavior: beg, beseech, order, request, command, decree, demand, dare, dictate

apprehension: address, affirm, call, consent, communicate, convey, declaim

belief: assert, advocate, claim, lie, counsel, declare, argue, deliberate, describe, diagnose, disavow, disclaim, discuss, state

informative answer: ask, interrogate, consult, debrief

purposive plans: advise

state of alarm: warn, admonish

admiration: boast

irritation: tease, banter, cavil, irritate

amusement: joke, jest

agreement and admission: blame, accuse

friendly attitude: acclaim, congratulate, coax,

favor: congratulate, commend, ingratiate

inferiority: disparage, belittle, demote, deride, ridicule, disregard

concern: deplore

disbelief: dispute, object, deny, demur, disagree

distress: condemn, decry, damn

disillusionment: debunk, disclose

cessation of behavior or attitude: defend, defy, discourage, dissuade

disapproval: disapprove, deprecate, condemn

surprise: surprise, amaze, dumbfound

lack of courage: discourage, daunt, dismay

Some of the terms above denote signals, i.e. they are associated with an intention to evoke D-apprehension of the signal-content. Some of these are:

State, assert, compel, threaten, convince, order, define, stipulate, advocate, demand, claim, lie, cant, declare, argue, deliberate, describe, disavow, disclaim, ask, interrogate, advise, admonish, accuse, congratulate, dedicate, dispute.

However, most of the terms we have considered are not necessarily connected with full-blown communication, or for that matter with speech. They simply signify such different aspects of human interactive activities as purpose, reason, motive and specific contextual and presuppositional features. These activities can be carried out through the medium of speech and verbal symbols, but can also be carried out in other ways. A can, for example, belittle or ridicule B both through his verbal signals or through non-verbal behavior. There is no necessary connection between verbal behavior and belittling or ridicule. In other words, the purposes, motives and reasons for most verbal behavior are not exclusively verbal or communicative, but are reasons, purposes, and motives for human action in general.

Speech is only one of the instruments available to accomplish goals of the type indicated by the terms we have studied above. We are thus in most of the above cases not studying actions which are exclusively connected with verbal communication, but actions the accomplishment of which very often requires verbal communication. Ordering, encouraging, ridiculing are things one normally does through verbal communication, though this is by no means necessary. If we want to gain an understanding of the motives, reasons and purposes of communicative acts, we must therefore study the social actions they are supposed to accomplish.

14.4.7 CONTEXTUAL REQUIREMENTS ON SPEECH ACTS

Besides controlling the manner of performance of most verbal actions conventions often regulate the contexts in which a communicative act can occur (see section 10.2.2). The application criteria of many communicative activity terms reflect this in requiring that a certain term can only be correctly used about activities taking place in certain contexts.

We will here make a distinction between discourse and non-discourse context.⁷⁷ By *discourse context* is intended all communicative activities that have preceded or are intended to follow a certain communicative act, i.e. preceding and following discourse. By *non-discourse context* is intended the social and physical setting of the communicative activity as well as the sender's and receiver's presuppositions about each other, about the context and the world in general. Again we will illustrate the contextual requirements regarding communication by demonstrating how a number of communicative activity

⁷⁷ The labels *communicative* and *non-communicative context* would perhaps have been more appropriate than *discourse* and *non-discourse context*, since *discourse* only includes verbal communication. But since we are mostly concerned with discourse, in any case, and since the label *non-communicative* would give the impression that the phenomena in question are not relevant to communication, we will retain the label *discourse context*, while intending it to include also contexts of non-verbal communication.

terms for correct application depend on context. No systematic or exclusive account has been attempted within the various contextual categories.

1. Discourse context

Preceding argument or premises: conclude, deduce, infer.

Preceding verbal utterance at some point in time: repeat, cite, quote.

Preceding proposal: approve, assent, agrees accept, confirm, affirms consent, concur, concede, corroborate.

Preceding statement: aver, affirm, deny, agree, approve, confirm.

Preceding request for information: answer.

Any preceding discourse: add, allude.

Preceding accusation: admit.

Following discourse: adumbrate, allude.

Let us illustrate the role of discourse context with the following example.

(59) It is wet

(59) is as it stands an ordinary statement, but we shall illustrate how its status can change slightly by providing three different discourse contexts.

1. *Conclusion:* A: Whenever it rains, the grass is wet and I see it has rained today.
B: Thus, it is wet.
2. *Objection:* A: The faucet is fixed, so the floor will not be wet.
B: (looking at A crossly) It is wet.
3. *Agreement:* A: That plumber does not do his job, the floor is still wet.
B: Yes, it is wet.

The example as it stands is insufficient since we have added the words *thus* and *yes* in 1. and 3., respectively, to obtain increased naturalness. However, I still think it illustrates the phenomenon of discourse dependence well enough to be retained.

2. Non-discourse context

A. *Presuppositions*

Presupposition of preceding malevolent action: apologize

Presupposition of preceding laudable action: acclaim, avow, acknowledge.

Presupposed area of description - illness: diagnose

Presupposed secret content: confide

Presupposed high evaluation of phenomena for which responsibility is claimed: boast

Presupposed conflict between two individuals: arbitrate

Overt flouting of presupposed norms for ideally cooperative communication: joke, banter, be sarcastic, be ironic, jest.

B. *Social setting*

a. *Institutionalized activities*

Legal: appeal, charge, convict, sentence

Official government: appoint, authorize, designate, dub, decree

*Official scholarly:*⁷⁸ acknowledge, define, designate, name, call, stipulate

Official legal transaction: bequeathe

Official church business: absolve, bless, baptize, christen

Official military: capitulate, demote.

b. *Non-institutionalized activities*

Differences in social power: order, command

Solidarity relation: greetings

Regulation of interaction: greetings, thank

C. *Physical setting*

It is difficult to find communicative activity verbs the application criteria of which depend on physical setting. *Direct* and *point* are two possible examples. The physical setting enters into linguistic expressions more through deictical adverbs, pronouns and tense-forms than through the content that is connected with communicative activity verbs.

14.4.8 INSTITUTIONALIZED PERFORMATIVES

To what extent do contextual factors provide necessary and sufficient application criteria for communicative activity verbs? Very often contextual factors are necessary. This is especially clear with communicative activity verbs that denote communicative acts which have conventional force, i.e. are institutionalized activities of some sort. See section 10.2.3. Such activities have their force by convention and they lose it if they are not performed according to convention. J. L. Austin 1962 (lecture 1) called such communicative acts *performatives*, but since this term has lately been used in many other ways, I will instead use the term *institutionalized performatives* which I think more clearly brings out their tie with social institutions.

Institutionalized performatives (the ones under 2.B above) have two features: 1. They have no force (in the sense of section 10.2.3) unless their manner of performance is conventional. 2. They have no force unless their conventional contextual requirements are met.

If these two conditions are met, an institutionalized performative normally acquires conventional force. No further genuineness or success conditions usually have to be met. E.g. a judge does not usually have to have any particular motive for his sentences to be valid, and a defendant does not usually have to apprehend the sentence in order to insure its validity. The felicity conditions of institutionalized performatives depend primarily on conventional features. To the extent that such features are externally observable contextual factors, their occurrence will be sufficient for the application of a term designating an institutionalized performative act. Thus, the occurrence of a certain type of activity in a

⁷⁸ The term *scholarly* is somewhat too restrictive, since most of the activities listed under this heading can occur in many other institutionalized contexts as well.

certain type of context will in some cases be both necessary and sufficient for the application of a term designating an institutionalized performative.

Some conventional features are non-observable, i.e. a priest should be properly ordained, and a judge properly appointed. The institutionalized performatives emanating from impostors would probably lose their conventional force, if the impostor were exposed. Further, normal rational agenthood is usually assumed, e.g. if the judge was insane and thought to be no longer responsible for his actions, his sentences could probably be nullified. Finally, at least some institutionalized performatives would lose their force if they were not intended to have their conventional force (see section 10.2.3). However, the fact that there are phenomena that could lead to the nullification of the conventional force of an institutionalized performative does not necessarily mean that conventional contextual features no longer would be sufficient to meet the requirements of the application criteria of a term designating the performative in question. An impostor disguised as a judge could be said to have sentenced a defendant, even if he is exposed, by virtue of the conventional observable traits of a certain situation. As we saw in section 14.1.1, this is due to the nebulous character of most action concepts codified in ordinary language.

With other communicative activity terms that denote activities which involve conventional manner, we have seen that conventionality is a sufficient but usually not necessary application criterion. The communicative acts can be accomplished in other ways than the conventional ones. The necessity of conventional correctness is, thus, an essential difference between the application criteria of terms denoting institutionalized performatives and terms denoting other communicative acts.

14.5 THREE OTHER APPROACHES TO COMMUNICATIVE ACTIVITIES

14.5.1 AUSTIN'S ACCOUNT OF LOCUTIONARY, ILLOCUTIONARY AND PERLOCUTIONARY ACTS

One of the most important contributions to the study of language use and communicative acts was made by J.L. Austin 1962.⁷⁹ In this book Austin sketched a research program that has inspired fairly large amounts of research on language use during the last twenty-five years. Although I am aware that Austin did not regard his work as a finished theory, I would still like, in view of their importance, to discuss critically some of Austin's suggestions.

Among other things, Austin suggests that one should distinguish what he calls the locutionary aspect of an utterance from its illocutionary and perlocutionary aspects. To be more exact, Austin claims that one, in uttering a sentence, concomitantly produces three acts: the locutionary, the illocutionary and the perlocutionary.

In what follows, I would like to argue that the three acts are not genuinely different aspects of a communicative act.

⁷⁹ As far as I can see, the new and revised edition of Austin 1962 (ed. by M. Sbisà and J.O. Urmson) changes nothing essential as regards my discussion of Austin's position.

One of the characterizations of the three types of acts that Austin 1962, 108, gives is the following:

'/performing/ a locutionary act which is roughly equivalent to uttering a certain sentence with a certain sense and reference, which is again equivalent to meaning in the traditional sense. Second, we said that we also perform *illocutionary acts* such as informing, ordering, warning, undertaking etc., i.e. utterances which have a certain conventional force. Thirdly, we may also perform *perlocutionary acts*: what we bring about or achieve by saying something, such as convincing, persuading, deterring and even, say, surprising or misleading.'

Austin's terminology is somewhat misleading, since by the choice of the term *act* he and most other writers on communicative acts give the impression that they are talking about temporally distinct actions rather than about specifications (section 2.5) or aspects of one and the same action. Second, Austin's way of wording the distinctions is somewhat unfortunate since he gives the impression that the actions he is talking about are tied to language, e.g. *detering*, which as we have seen (section 14.4.6) is not true. The acts he is describing are not necessarily linguistic. Since Austin seems to admit this in other places, his wording is at least somewhat confusing.

Thirdly, it is unclear what aspects of an action his three aspects really correspond to. The locutionary aspect seems to correspond to what we have called conventional display content or conventional signal content. The perlocutionary aspect could correspond to actually achieved effects in a receiver. Nearly all Austin's perlocutionary acts are what we have called *evoked reaction terms*. But the perlocutionary aspect could also correspond to intentions to achieve such effects, i.e. manipulatory intentions.⁸⁰ The illocutionary aspect is more problematic. The illocutionary aspect or force of an utterance is supposed to be conventional. The only cases where talk of conventional force is really clear is, as we have seen, with institutionalized performatives; in other cases involving convention, such as questions and orders in interrogative or imperative form, conventional manner of performance is sufficient but not necessary. One can ask questions or give orders without using the interrogative or imperative form (see sections 10.5.4 and 10.5.5). Further, it is not clear that questions and orders, even if they were in interrogative or imperative form, would have conventional force (see section 15.3). Whatever the answer to this problem may be, consideration of non-conventional questions and orders, shows that the claim that illocutionary acts are conventional (in the sense of chapter 3) cannot always be true. See also section 15.3 below. However, Austin might have intended a different notion of convention than the one defined in chapter 3, in which case his claim might be correct. The task would then be to give a definition of this notion. Austin might also have intended to say something weaker, namely that illocutionary acts can be, but are not necessarily conventional.

⁸⁰ This ambiguity is brought out already in Austin's first characterization of the perlocutionary act. Austin 1962, 101.

'Saying something will often, or even normally, produce certain consequential effects upon the feelings, thoughts or actions of other persons: and it may be done with the design, intention or purpose of producing them; We shall call the performance of an act of this kind the performance of a *perlocutionary act* or *perlocution*.'

Further, the term *force* needs some clarification. Does it refer to the sender's intended communicative purpose and content, or possibly to the content and purpose which the receiver actually apprehends. Does it refer to an observer's description of what he, on the basis of normal, natural assumptions about senders and receivers expects that the sender intended and the receiver apprehended? Or does it possibly refer to some part of the conventional content of an act of display or signal? Or does it refer to the actual expressive function of a communicative act? I suspect that the term has its primary application in connection with institutionalized performatives, the kind of utterances Austin was initially interested in (Austin 1962, 4 ff.). In fact, the concept of illocutionary force seems to be an attempt to fit all communicative activities into the same mold as institutionalized performatives.

Some of the difficulties with the notion of conventional illocutionary forces is perhaps due to the fact that Austin did not have time to give a more full account of the factors that determine actual communication. What a sender intends to signal and what a receiver D-apprehends is usually a function of several factors such as conventional content, shared presuppositions and mutual cognitive and ethical considerate cooperation, and not to any great extent a matter of arbitrary convention, except as far as the conventional content of a signal is concerned. The fact that the sentence *It's cold outside* can function as a warning, does not have much to do with convention, but with the conventional content of the utterance and presuppositions about the situation.

Part of what Austin called illocutionary force could perhaps more correctly be considered as part of the conventional content, i.e. the locutionary aspect of a communicative act. Consider sentence (60).

(60) I warn you that it will be very hot in the Sahara

The fact that (60) is a warning does not require any special conventions 'constituting' warnings. The conventional application criteria tying *warning* to a special kind of communicative activity and the convention making a declarative sentence into a claim about the way the world is, i.e. in this case the world of communicative activities, are completely sufficient. A competent sender is supposed to act only when he believes that his action has a good chance of achieving its purpose. Thus, he should attempt a claim about the world only when he believes that it has a chance of being correct, i.e. when he has evidence or other reasons to believe that the world is the way he wants to claim it to be.

Thus, if the sender claims that he is warning the receiver, i.e. signals that he has a manipulatory intention to evoke a cautious attitude in the receiver with regard to the signal content of the subordinate clause, there is all the more reason for the receiver to believe him, since who would be in a better position than the sender to know if he had such an intention.

In other words, the only conventions that are needed are the ones giving the declarative form a certain conventional content, and the ones giving lexical items like *warn* a certain conventional content. What is left of the signalled or apprehended content derives from mutual presuppositions and mutual ethical consideration of normal rational agenthood. No special conventions for warning are needed.

Note that there is no necessity for a sender to have such a manipulatory intention. He could be unethical and deceptive. For example, if he believed that the receiver was an obstinate and overly independent person who never heeded warnings and usually adopted an attitude of cheerful optimism toward whatever he had been warned of, he could intend to trap the receiver by warning him. The fact that a sender signals a claim about possessing a certain manipulatory intention does not mean that he actually possesses such an intention.

Thus, while acknowledging Austin's pioneering contribution to the study of communicative acts, I am somewhat critical of certain aspects of his account. Either his concepts must be further explicated and clarified⁸¹ or a new terminology and conceptual framework should be adopted. In this thesis I have sketched such a framework which I hope will show more clearly that communicative acts are merely a special type of actions in general and how some of the factors Austin did not have time to deal with can be incorporated into such a framework.

14.5.2 SEARLE'S THEORY OF SPEECH ACTS

John Searle, in Searle 1969, presents a theory which is a development of the account presented in Austin 1962. Searle claims that four acts are characteristically performed in the utterance of a sentence (p. 24 and 25):

- (p. 24) (a) Uttering words (morphemes, sentences) = *performing utterance acts*
- (b) Referring and predicating = *performing propositional acts*
- (c) Stating, questioning, commanding, promising, etc. = *performing illocutionary acts*

- (p. 25) 'To these three notions I now wish to add Austin's notion of the *perlocutionary act*. Correlated with the notion of illocutionary act is the notion of the consequences or effects such acts have on the actions, thoughts or beliefs etc. of hearers. For example, by arguing I may *persuade* or *convince* someone, by warning him I may *scare* or *alarm* him, by making a request I may *get him to do something*, by informing him I may *convince him (enlighten, edify, inspire him, get him to realize)*. The italicized expressions above denote perlocutionary acts.'

If we substitute 'utterance act' and 'propositional act' for 'locutionary act' I believe most of the problems connected in Austin's account discussed in section 14.5.1 also apply to Searle's theory. Therefore, I will not repeat this discussion, but instead consider another part of Searle's development of Austin's theory, namely the constitutive (for a discussion of the notions of constitutive and regulative rule, see section 3.4) criteria and rules that Searle gives for various speech acts, or more properly, in his terminology, for the use of 'illocutionary force indicating devices'.

Searle lists the following conditions that should be satisfied by a speech act of promising (Searle 1969, chapter. 3.- The conditions are my rendering of his text):

1. Normal input and output conditions:

⁸¹ For an attempt of this type, see Wetterström 1975.

Communication is supposed to be literal and serious and take place between a sender and a receiver who are physically and physiologically able to communicate.

2. and 3. Propositional content conditions:

The utterance act should express a proposition. The proposition predicates a future action of the speaker.

4. Preparatory conditions:

- (a) The speaker assumes that the hearer prefers that he performs this action to his not performing the action, and that the hearer actually prefers this.
- (b) It is not obvious to both the speaker and the hearer that the speaker will perform the action anyway.

5. Sincerity condition:

The speaker intends to perform the action his expressed proposition predicates of him.

6. The essential condition:

The speaker intends that his utterance would place him under an obligation to perform the action in question.

7. The non-natural meaning condition:

The speaker intends that the hearer should realize that the speaker intends the hearer to realize that the speaker is placed under an obligation to perform the action in question by his utterance and that the hearer's realization of this should be in virtue of his knowledge of the meaning of the speaker's utterance.

8. Defining condition:

The speaker's utterance is a correct and sincere promise iff conditions 1 - 7 obtain.

I would now like to discuss the extent to which Searle's 8, or rather 7, conditions are derivable within the framework for action and cooperation developed in this thesis and to what extent they are what Searle claims that they are, conventions specific to verbal communicative acts, i.e. in his terminology - 'speech acts'. In other words, I want to consider to what extent Searle's conditions are consequences of ideal cooperation between normal rational agents.

1. Normal input and output: This condition contains exactly the kind of requirements any competent sender and receiver would have to have regarding communication. That is, with the exception of the restriction to literal and serious communication, for which I see no point at all, especially since communication is so seldom literal, it does.

2 - 3. The propositional content conditions: The first propositional content condition says that an utterance act should express a proposition. I have no particular objection to this condition, except that I have difficulties in understanding what a proposition is, if it can be expressed by both questions and imperatives (Searle 1969, 22). It seems desirable, to me at least, to analyze propositions into more basic components, like 'matter' and 'quality' (see section 7.4.5), and then to express the similarities between questions, statements and imperatives in terms of these.

As regards the second propositional content condition for promising, i.e. that the proposition expressed predicates a future action of the speaker, it is a consequence of the content of the particular communicative activity verb being considered. Since *promise* means undertaking an obligation to perform some action, and since the declarative form indicates that the speaker is making a claim for which he, as a competent sender, should have good reason, the proposition describing the action the speaker is undertaking an obligation to perform should predicate that action of him, and since there are no time-machines in general use, the action should be a future action. Similar content restrictions will be derivable from other speech activity terms in order to maintain conceptual coherence in the total signal content.

4. The preparatory conditions: The first condition seems to be a consequence of the fact that promising, as opposed to threatening or scaring, is the kind of communicative act which requires ethical consideration of the receiver, i.e. the sender's action should be in the receiver's best interest.

The second condition seems to be a more generally valid consequence of agenthood and adequacy. There is no point in spending extra energy to place oneself under obligation to do something that would be done anyway.

5. The sincerity condition: This condition seems to be a consequence of the fact that most communicative acts are normally connected with a certain motive, i.e. they are genuine if they are performed as ideally cooperative actions. See sections 11.3.4 and 14.1.1.

6. The essential condition: This condition follows from the meaning of the word *promise* and the fact that the speaker is making a claim about himself. This is the only condition where, as far as I can see, anything like a special convention for promising is relevant, i.e. the conventions connecting a certain content with the word *promise*. The fact that the term *promise* partly designates a social phenomenon - placing oneself under obligation - makes no difference here. Even if the social phenomenon itself is created by convention, which I am not sure of in this case, that does not mean these conventions are conventions for promising. As a matter of fact, they are probably not, since placing oneself under obligation is a much wider concept than promising. For the specific feature of promising, i.e. to make the obligation concern the speaker's own actions there is only a lexical convention and considerations of cooperation and ethical normal rational agenthood.

7. The non-natural meaning condition: Grice 1971 is the source of Searle's condition 7 (see Searle 1969, 60 and section 9.4.2). If Grice is right then this condition is a feature of all communication and not specific to promising. This would be compatible with my definition of full-blown communication, since an analysis like the one in condition 7 is an essential feature of this definition.

8. Defining condition: This condition is correct. But this is due more to the lexical conventions for *promise* and the relation between the application criteria of *promise* and the felicity conditions of promising, based on ethical normal rational agenthood, than to any special conventions for promising. As I noted in my discussion of Austin, this point presupposes that the concept of convention is taken in the sense defined in chapter 3. Thus it does not seem to me that Searle has to any great extent managed to substantiate Austin's

claim about the conventional nature of illocutionary force.⁸² Instead what he has done is to notice very elegantly how some of the general conditions pertaining to verbal communication interact with the lexical content of certain communicative activity terms. Such an analysis is valuable since it is of interest to find out exactly what combinations of general conditions and idiosyncratic factors can be denoted by the various communicative activity terms of a certain language.

14.5.3 BÜHLERS NOTIONS OF SYMPTOM, SYMBOL AND SIGNAL FUNCTION

Another pioneering effort in the study of communicative acts is the work presented in Bühler 1934. Bühler presents a doctrine of the following three fundamental functions of language.

1. The symptom function, i.e. the fact that linguistic utterances convey information about a speaker.
2. The symbol function, i.e. the fact that a speaker through language can convey information about the world outside the speaker and listener.
3. The signal function, i.e. the fact that a speaker can intend to affect a receiver in various ways.

I will now discuss the relationship of these three functions to the account presented in chapters 7, 8 and 9 above.

A sender's expression, displaying and signalling of a certain psychological state all seem to be examples of the symptom function. The fact that a sender, normally, in conveying information about the world around him expresses his own beliefs, has the consequence that most communication which is symbolic will also be symptomatic.

(61) I believe it's raining

For (61) this would mean that the symptom - symbol distinction on the level of signal-content (my concept signal) would correspond to the distinction between matter and quality. But on the level of expressive function it is hard to see what would be the symbolic aspect. Maybe the embedded matter of the expressed belief will do. If we turn to Bühler's signal notion, it can apply to both actual receiver-reactions and manipulatory intentions in the sender, where the latter would also count as symptoms, since they are psychological states in the sender.

Further, we could relativize the three functions to sender, receiver and observer. What is intended as a signal by a sender is not always apprehended as such by a receiver or an observer. Thus. it seems that with a few changes here and there Bühler's communicative functions can be made quite compatible with the conceptual framework presented in this thesis.

⁸² For a discussion of conventions and speech acts, see also Wunderlich 1972 and Cohen 1974.

15 CONVERSATION AND LANGUAGE GAMES

15.1 SOME DATA ON CONVERSATION

We will now consider how our analysis of ideal cooperative full-blown communication squares with some of the empirical work done on the structure of conversation. Sacks, Schegloff and Jefferson 1974, 700, present the following summary description of conversation based on a large number of transcripts of ordinary everyday spoken conversation.⁸³

'In any conversation:

1. Speaker change recurs or, at least, occurs.
2. Overwhelmingly, one party talks at a time.
3. Occurrences of more than one speaker at a time are common, but brief.
4. Transitions (from one turn to a next) with no gap and no overlap are common. Together with transitions characterized by slight gap or slight overlap, they make up the vast majority of transitions.
5. Turn order is not fixed, but varies.
6. Turn size is not fixed, but varies.
7. Length of conversation is not specified in advance.
8. What parties say is not specified in advance.
9. Relative distribution of time is not specified in advance.
10. Number of parties can vary.
11. Talk can be continuous or discontinuous.
12. Turn allocation techniques are obviously used. A current speaker may select a next speaker (as when he addresses a question to another party); or parties may self-select, in starting to talk.
13. Various 'turn-constructural units' are employed; e.g. turns can be projectedly one word long, or they can be sentential in length.
14. Repair mechanisms exist for dealing with turn-taking errors and violations, e.g. if two parties find themselves talking at the same time, one of them will stop prematurely, thus repairing the trouble.'

Many of the points on the list provided by Sacks et al. can be seen as results of viewing the communicators as cooperating normal rational agents. See chapter 11. Thus, point 1 seems to be a consequence of the requirements a normal agent has regarding free and voluntary communication (section 11.1), while points 2 and 3 seem to be a consequence of communicators considering each other's needs as normal agents in combination with the adequacy and competence requirements on communication; i.e. human information processing is not capable of handling more than one signal at a time. In order to enable individuals to communicate adequately, competently and freely, a communicator should thus be allowed to complete his signal undisturbed by interruption (sections 11.3 and 11.4).

⁸³ For interesting discussions of the data of Sacks et al., see Gazdar 1975 and Anward 1976. See also Goffman 1971 for other types of data on conversation.

Point 4 shows that cooperative efficiency seems to be achieved while meeting the requirements of normal agenthood and competence.

Points 5, 6, 7, 8 and 9 seem to be consequences of the normal agent's wish for free unrestricted communicative activity. Normal agents should be able to talk to each other about whatever topic, whenever, and for whatever period of time they please (see section 11.1). Point 10 is also a consequence of normal agenthood. Anybody should be free to join a conversation, if he wants to. Point 11 is also in accordance with normal agenthood. However, it clashes with adequacy. Even though an agent should be able to present his signals in any manner he likes, the signals will, if they are too discontinuous or continuous, clash with both adequacy and pain and pleasure.

Point 12 is a consequence of normal agenthood, adequacy and competence. A communicator should be able to select those communicators with whom he believes he will be able to have the most competent and adequate communicative interchanges. Point 13 seems to be a consequence of normal agenthood and adequacy. A communicator should freely be able to select those signal-forms which he believes will most adequately convey his communicative intentions. It is especially important for conversation as a cooperative venture that the communicators adequately mark the beginning and end of their signals, since this makes possible efficient transition from one communicator to another.

Finally, point 14 is not a consequence of any particular norm, but rather of the general fact that there are norms underlying conversation. If the regularities in conversation are not haphazard or entirely governed by non-conscious factors, they are probably governed by norms. If they are governed by norms, we expect individuals to avoid or repair norm-breach, and we expect there to be sanctions for those who, without repairing, break the norms. Everyday experience and the data of Sacks et al. overwhelmingly confirm the presence of such repair mechanisms, i.e. avoidance of interruptions etc., and sanctions, i.e. gossip and direct insults and reprimands.

Thus, we can see that at least some of the data available on everyday conversation supports the claim that full-blown communicative interaction is a type of ideal cooperation. However, it does not seem to be a type of ideal cooperation with large restrictions on individual freedom of action, which is maybe not always conducive to efficient transfer of information. What we have in conversation seems to be a system where maximum communicative freedom is the primary goal and where ideal cooperation is enlisted as a means of achieving whatever common purposes that might come up.

It is thus not clear that conversation really comes closer to ideal cooperation than other types of communicative interaction such as debates, lectures, sermons, business meetings, interviews and seminars. All of these involve elements of cooperation in sending and receiving information. The main difference between conversation and the other types of interaction seems to be in the dimension of freedom of action. With most types of communication, phenomena having to do with social power, solidarity and role relations come into play and restrict the possibilities of the communicators to communicate in their own freely selected manner, for their own selected motives.

In debates, for example (see Sacks et alia, 729 and Anward 1976), the communicators are selected by a chairperson and their choice of purpose and topic, time and manner of presentation is often severely restricted. In sermons, the selection of communicator, the

purpose, manner and time of presentation is even more restricted. The social restrictions on the communicator extend also to his dress and the place of communication.

Interviews exhibit another type of restriction. They restrict the purpose of the communication. Certain communicators are supposed to request information on some topic, while others are supposed to provide that information. Besides such conventional forms of restrictions on communicative interaction as the ones discussed here, power, solidarity and role-relations may interfere with any communicative interchange in a non-conventional way and produce various types of restrictions, communicative rights for certain communicators and to the usurpation of communicative rights for others. This happens in ordinary conversation as well, but usually in a milder form than when it is officially institutionalized and sanctioned.

15.2 LANGUAGE GAMES

The term *language game* was introduced by Wittgenstein 1953, § 7, to designate more or less any type of human interaction involving language.⁸⁴

Using Wittgenstein's idea, I would like to propose the following definition of a language game.

Any interaction between at least two persons involves a *language game* iff

1. a sender tries to verbally display or signal information to a receiver,
2. a receiver apprehends and reconstructs that information,
3. a receiver understands and takes a stand on the information,
4. a receiver behaviorally reacts to the informations within a relatively short period of time after he has apprehended and understood it.

Thus, according to this definition, acts of successful full-blown communication do not necessarily qualify as language games. Full-blown communication only qualifies as a language game if communicatively relevant behavior is exhibited by both sender and receiver. A language game, thus, requires more of a receiver (i.e. an observable reaction) than full-blown communication. A lecture on the radio could quite well qualify as full-blown communication, but it would not qualify as a language game. A language game requires more interaction than full-blown communication and usually also more cooperation.

This way of defining *language game* has the advantage of giving the term a somewhat more specialized sense than 'communicative activity' or 'type of communication'. If the term is to be used in this latter quite wide sense, I see no obvious advantage in introducing the term instead of terms like the latter two.

⁸⁴ It is important to note that a 'language game' was intended to involve all aspects of interaction involving language - verbal as well as non-verbal activities. See Wittgenstein 1953, 5: 'Ich werde auch das Ganze: der Sprache und der Tätigkeiten mit denen sie verwoben ist, das "Sprachspiel nennen.'

Since there are an unlimited number of ways in which verbal interaction can be used in human interaction, the number of language games is also unlimited. However, since there is a certain constancy in human interaction patterns, some of the verbal interactions between sender and receiver tend to be repeated. It is useful to have terms for phenomena that are important and occur relatively frequently in human everyday experience. Thus, in ordinary language we find a number of terms for interaction types that involve verbal communication. The following are examples:

Discourse, conversation, meeting, debate, interview, introduction, palaver, lecture, sermon, mass, rehearsal, sing-song, ceremony, marriage ceremonies, tête-à-tête, altercation, dispute, flirtation, bargain, negotiation, chatter, conference, discussion, interrogation, quarrel, gossip, chit-chat, talk, confession, seminar.

We see that some of them are just terms for verbal interaction, like: *discourse*, *conversation* and *talk*. Others focus more on special characteristics of verbal interchange, like a certain expressive function: *quarrel*, *chatter*, *flirtation*, or a certain social institution: *lecture*, *ceremony*, *confession*, *marriage ceremonies* or a less institutionalized purpose: *conference*, *interrogation*, *public or business meeting*, *negotiation*, *interview*, or lack of institutionalized purpose: *gossip*, *chat*, *chit-chat*.

As we have seen, we can also find a number of communicative activity terms designating speech signals intended to bring forth a behavioral response from a receiver, and a number of terms designating such behavioral responses, both verbal and non-verbal. Sometimes there are even terms which can designate a sender's response to a receiver's response. Communicative activity terms of this type can be grouped in pairs or in triads, where the actions which are denoted by the terms are supposed to correspond to each other within a pair or triad, in the sense that they are correspondences to be expected from normal rational agents on the basis of naturalness, ethical cooperation or convention. The following pairs and triads provide some examples of such corresponding actions.

(62) Pairs and triads of communicative action terms

	A. Sender-initial	B. Receiver response	C. Sender response
1.	question, ask	answer, reply	acknowledge, thank
2.	request, command order, force	obey, protest, refuse, give in	thank, acknowledge, reprimand
3.	invite	refuse, accept	acknowledge
4.	state, report	affirm, deny, object, aver, avouch, gainsay, acknowledge, add, confirm	grant, admit, acknowledge
5.	accuse, blame	admit, deny, confess, disavow, apologize, accept, repent	forgive
6.	confess	absolve	
7.	propose, suggest	agree, approve, assent, oppose, accept, object, confirm, refuse	grant, admit, acknowledge
8.	attack, insult	defend, insult, challenge	
9.	beg, beseech	agree, refuse, pledge, promise	acknowledge
10.	greet	return greeting	
11.	introduce	introduce	

Any sequence of communicative activities of the type indicated in the table above would qualify as a language game in the sense of the earlier given definition.

As far as the felicity conditions (see section 14.1) of the activities in columns B and C go, it does not seem that an occurrence of an activity of type A is a necessary precondition for the felicitous occurrence of an activity of type B. Nor is an activity of type B necessary for the felicitous occurrence of type C. Thus, at least some of the activities in columns B and C can felicitously occur without having been preceded by an activity in column A or B respectively.

Rather, one should view the activities in A and B as providing, together with certain other conditions, sufficient conditions for the activities in B and C respectively. Correspondingly, these conditions give rise to criteria which together with certain other criteria are sufficient but not necessary for the application of the relevant communicative activity terms.

15.3 FACTORS DETERMINING LANGUAGE GAMES

Some of the most important factors that determine communicative interactions of the type indicated in (62) are:

1. The information which the sender displays or signals
2. The occurrence of behavior with conventional content or conventional force.

3. The information the receiver apprehends and his attitude to this information (includes indicated information, see sections 7.1 and 7.2)
4. The norms of ideal cooperation.
5. Particular conventional requirements.
6. Social power and solidarity.

Let us now consider how factors such as these determine a question-answer sequence. If a sender wants information, he will signal to the receiver to give him information by, for example, asking him a question. If the receiver D-apprehends the sender's manipulatory intention, he has to decide whether to comply with the sender's intentions or not. Normally, if he has the information the sender (the norm of competence) wants, he will answer. Why does he answer? I suggest that one of the main reasons for his answering the question is ethical consideration of the sender. If A needs help (in this case in the form of information) and B can give that help without much cost to himself, then the norms of ethical consideration strongly oblige B to answer. Since A is reflexively aware of this norm, he will expect B to answer, and consider B impolite if he does not answer.

But ethical consideration alone cannot explain why one feels more obliged to answer an explicit question than one feels obliged to provide information in a situation of the following type: A is standing on a streetcorner with a map in his hand looking utterly lost. B who is well acquainted with local geography sees him and understands that he needs help and by virtue of ethical consideration he also feels somewhat obliged to help A. But he would feel even more obliged to help A, if A explicitly requested help.

Some of the reasons for this are: an explicit question would make it socially obvious that B could be expected to take A into ethical consideration. It would thus be an externally observable event which could be cited if negative sanctions were to be imposed against B. An explicit question thus puts B under increased social pressure to answer. Further, it would contribute to reducing any uncertainties B might have about his interpretation of the situation. It would become more unambiguously clear that A needed help and B would therefore also be under stronger ethical pressure to answer.

Thus, in contradistinction to for example Severinson-Eklundh 1976, I do not think that one needs to invoke conventions to explain language games like question-answer. The norms of ethical cooperation together with the connection between externally observable events and ethical and social pressure are sufficient to explain why a question is answered. There does not have to be a special convention regulating the answering of questions. The validity of this point, of course, depends on using the term *convention* in the sense defined in section 3.1. If it is not used in this way but in the sense of my concept norm, which need not be of arbitrary origin, but can just as well be a natural impulse, then, of course, my argument has no validity. This question cannot be determined since Severinson-Eklundh gives no definition of the terms *convention* and *rule*. This point applies with equal validity to those of my arguments against Austin and Searle that are based on their claim of conventionality for the communicative aspects they discuss.

The claims made here about the non-conventional nature of many language games should not be taken to imply that I consider conventions unimportant for social interaction. Many social phenomena are obviously mainly determined by conventions, but there is therefore no need to claim that all social phenomena are determined by conventions. Some are

determined by factors such as the norms of ideal cooperation or natural biological impulses. Further, there is no incompatibility between norms and conventions. As far as I can see, conventions and norms reinforce each other, very often in such a manner that conventions reduce certain degrees of freedom left by a norm.

True conventionality (in my sense) becomes really important in institutionalized contexts, where the communicators have certain conventionally well-defined role relations to each other, e.g. in the exchange of institutionalized performatives like in legal proceedings. Since degree of institutionalization can vary (section 3.2), we can expect conventional traits also in other less institutionalized contexts. However, I do not think we need to invoke conventions to any great degree to explain why certain communicative acts follow others in everyday conversations.

Social power and solidarity as codified in the various role-relationships between communicators are other very important factors determining communicative interaction. Why does a soldier in the barracks obey his officer's command? I think convention and ethical consideration play some role, but the most important factor is the social power the officer has to invoke sanctions against the soldier. This social power can diminish the sender's ethical consideration of the receiver and, if the sender's power is socially sanctioned as it is in military institutions, it also diminishes the receiver's legal rights to escape infringements of his status as a normal rational agent.

The situation is more complicated with less institutionalized social power and conflicts often develop. If A who is standing very close to an open window orders B, who is standing at the other end of the room, to close it, B will feel very rudely treated and probably refuse or at least challenge A's authority with remarks like *Who the hell are you to order me around?* One does not accept such an infringement of one's rights as an agent unless there is sanctioned social power involved. The degree of indignation at having to accept such infringements will probably vary with the degree of institutionalization of the sanctions, i.e. one probably feels more wronged and humiliated by the orders of a gangster than by those of a policeman.

15.4 THE 'INDIRECT RECURSIVENESS' AND 'PUSHDOWN-STACK' CHARACTER OF LANGUAGE GAMES

Consider the following sequence of verbal communicative interaction.

- (63) A1: Give me back the dimes you took from me.
B1: But I gave them to the Red Cross.
A2: Nonsense, I saw you buy candy for them.
B2: No, I bought cigarettes.
A3: So, you stole them and bought cigarettes.
B3: Yes, I have been so wicked. Please forgive me.
A4: I will forgive you if you really regret what you did and apologize.
B4: I apologize and promise never to do it again.
A5: O.K.

The first thing to note about A's and B's remarks is the many ways in which they are specifiable as communicative activities. A's first remark is both a request and an accusation with the manipulatory intentions of getting B to admit his deed and to comply with the request. This is not surprising in view of the discussion in section 2.5 of how actions are specifiable in terms of the different purposive intentions possessed by a certain agent. Similarly, B's first remark is both an admission, an extenuation and an assertion. A's second remark is an objection, a refusal and an assertion etc. Thus, each utterance can have several expressive functions and manipulatory intentions.

This is important, since the receiver's reaction need not concern more than one of the specifications in order to satisfy the requirement of conversational relevance generated by the principle of adequacy. Thus, A's second remark focuses on the extenuative and assertative aspects of B's first remark, and through a new assertion provides a refusal to accept the extenuation and an objection to the assertion. B's second remark focuses on the assertative aspect of A's second remark and provides an objection. A3 uses the preceding discourse in toto to draw a conclusion which is both an assertion and a new accusation. B3 is an admission and expression of regret, followed by an entreaty. A4 is a promise of conditional acceptance and a suggestion. B4 is an acceptance of the suggestion and an apology. A5 is an acknowledgement and acceptance of B's apology.

The sequence illustrates two important abstract properties of communicative interchanges, i.e. 'indirect recursiveness' and 'pushdown-stack structure'. What I mean by *indirect recursiveness* here is the following property of a language game, viz. that the same sequence of activities can be repeated again and again within the same interchange. We state this as a rewrite rule in order to bring out the analogy with more familiar types of recursiveness (the arrow means *can be followed by*).

$$(64) \quad \text{statement} \left\{ \begin{array}{ll} \text{affirmation} & \text{avowal} \\ \text{denial} & \text{acknowledgement} \\ \text{objection} & \text{addition} \\ \text{averment} & \text{confirmation} \end{array} \right\}$$

An objection can usually also be specified as a statement, which according to the rewrite rules means that it can be followed by an objection. Thus, an objection can in virtue of also being a statement always be followed by another objection. We can thus formally generate endless sequences of objections initiated by a statement in the following way:

statement - objection - objection - objection - objection...

Thus, we can see that recursion in communicative interaction requires two components: sequence and multiple specifiability of actions, which is why I have called the recursion indirect. We need two types of rewrite rules in order to bring out indirect recursiveness:

1. *Sequence rules* of the form $X \rightarrow Y$ (X is followed by Y)
2. *Specification rules* of the form $X \rightsquigarrow Y$ (X can be specified as Y)

We also need a metarule telling us that the output of one type of rule is acceptable as input to the other type of rule.

1. *Sequence rule* statement \rightarrow $\left\{ \begin{array}{c} \text{objection} \\ \cdot \\ \cdot \\ \cdot \end{array} \right\}$

2. *Specification rule* objection $\sim>$ $\left\{ \begin{array}{c} \text{statement} \\ \cdot \\ \cdot \\ \cdot \end{array} \right\}$

3. *Metarule* Every application of a sequence rule can be followed by an application of a specification rule, and vice versa.

In the dialogue above, we see this mechanism made use of, for example, in the transition from B1 to A2 (sequence), from A2 to B2 (specification and sequence).

Severinson-Eklundh 1976 suggests the term *pushdown-stack structure* for the following property of communicative sequences. If A has a purpose P1 for interacting with B, B can introduce a subsidiary purpose P2 which has to be achieved before P1 can be achieved. P1 is then put on a push-down stack until P2 is achieved, when P1 can again be attempted. More fundamentally, of course, this is a feature of the interacting agents' competence, adequacy, purposefulness and cooperative consideration of each other. The following sequence adapted from Severinson-Eklundh and Kjølner 1973 illustrates the phenomenon.

- (65) A: You are arrested. (P1)
 B: Who are you? (P2)
 A: The police (P2 achieved)
 B: Show your identification. (P3)
 A: (Shows his ID-card) (P3 achieved)
 B: O.K. (P1 achieved)

P1 is introduced by A but stacked in favor of P2 by B. P2 is then taken care of by A. P3 is then introduced, which stacks P1 again. A takes care of P3 and only now can P1 be accomplished.

In fact, our initial dialogue (63) also illustrates the pushdown-stack phenomenon:

- A1:P1: accusation
 B1:P2: extenuation
 A2:P2: denial of extenuation
 B2:P2: implied admission to failure of extenuation
 A3:P1: accusation renewed
 B3:P1: admission

In order to bring out the pushdown-stack structure of (63), we have here chosen to specify only some of the purposes of the interaction and to leave the others out.

Indirect recursiveness and pushdown-stack structure are probably two of the most salient structural properties introduced into communicative sequences by adequacy, competence and ideal cooperation.

Finally, I would like to make a comment on the last row in the 'pairs and triads' table (62) above. In it, I have often used the term *acknowledgement*. By this term, I intend the 'Roger'-function, i.e. the various ways in which a receiver can indicate his apprehension, understanding or acceptance of information he has received. The least one can demand from a cooperative receiver is that he acknowledges apprehension and understanding, so that the sender has a chance of knowing if he has got his information across. *Yes, umhuh, mm* are common such acknowledgers, connected with apprehension, understanding or even acceptance. To some extent, there are clear prosodical differences in the pronunciation of these particles, depending on which status the receiver is granting the information he is receiving. *Oh* indicates surprise in addition to apprehension and understanding, *O.K.* indicates additional agreement and *thanks* indicates additional gratefulness. All of them signal that a certain communicative purpose has been achieved and can therefore also function as signals that a certain communicative interaction can be ended. Consider the following dialogue.

- (66) A: You know Doris?
B: Yeah.
A: I met her.
B: Oh
A: I fixed a date with her for you.
B: Wow, thanks.
A: Pick her up Saturday.
B: O.K.

Here, probably, *yeah* is both an acknowledgement of apprehension and an affirmation. *Oh* indicates apprehension and surprise. *O.K.* at the end indicates agreement and acceptance.

16 SYNTAX, SEMANTICS AND PRAGMATICS

16.1 THE CLASSICAL DISTINCTION

The classical distinction between syntax, semantics and pragmatics is due to Morris 1938, 6-7:

'One may study the relation of signs to the objects to which the signs are applicable. This relation will be called the *semantical* dimension of semiosis' /the process in which something functions a sign, involving: sign-vehicle, what the sign refers to, interpreter and interpretation (my addition, see also Morris 1938, 3)'/... 'or the subject of study may be the relation of signs to interpreters. This relation will be called the *pragmatical* dimension of semiosis ... One important relation of signs has not yet been introduced: the formal relation of signs to one another ... This third dimension will be called the *syntactical* dimension of semiosis.,

Morris called the study of these dimensions *semantics*, *pragmatics* and *syntax* respectively. The distinction has had a fair amount of heuristic value in giving rise to linguistic and philosophical research programs, but is problematic in many ways.

We will first consider the possible trivialization of the distinction. The way in which Morris's distinction is worded has as a consequence that all problems in linguistics can be dealt with either syntactically, or semantically, or pragmatically.

Chomsky 1965 through the introduction of selection restrictions into syntax provides an illustration of how problems which one intuitively would regard as semantic problems can be made syntactic, and Lakoff 1971 provides an illustration of how pragmatic problems can be made syntactic. All one has to do is to claim that any data pertaining to the meaning and use of linguistic items are, in fact, formal syntactic properties of these items, determining their possibilities of co-occurrence with other items.

Similarly, one can trivialize semantics by making all syntactic and pragmatic considerations into restriction on the relation between a sign vehicle and what it refers to. Schank 1971 comes pretty close to this position, especially when it comes to doing away with syntax. In the same manner, all semantic and syntactic features can be viewed as restrictions on a sign's relation to an interpreter, and thus as a part of pragmatics.

The task of finding a way to avoid trivialization of the distinction between syntax, semantics and pragmatics has been and still is a conceptual problem within linguistic theory. Much of the late 1960's and early 1970's within the framework of transformational grammar has been spent on arguments about the status of syntax and semantics in relation to each other, because of the unclarity of the distinction between them. In philosophy, one could perhaps say that it is the distinction between semantics and pragmatics that has been problematic and by no means resolved yet. See Quine 1960 and Montague 1974, chapters 3 and 4. It is to be hoped that those aspects of the discussion of the relationship between syntax, semantics and pragmatics which have their ground in the trivialization of Morris's distinction can be avoided in the future. A more fruitful approach to the problem, for the

time being, would probably be to abandon the search for a general abstract definition of the distinction and instead concentrate on the relationship between certain clear and undisputed areas of syntax, semantics and pragmatics. See section 16.4, below.

16.2 CONVENTIONAL CONTENT AND TRUTH CONDITIONS

A second problem which mainly concerns the relation between semantics and pragmatics is the following. Morris's definition of semantics gives one occasion to think that it chiefly concerns reference, and possibly truth-conditions as an extension of the notion of reference from terms to sentences. What should in this case be done with all the aspects of meaning that are non-referential or non-truth conditional, such as those linguistic expressions that primarily signal expressive function or manipulatory intention? The difficulties of handling questions and imperatives in formal semantics are widely recognized. Should such aspects of meaning be disregarded in the study of semantics and left for later treatment in a pragmatic theory?

A solution of this type goes strongly counter to another intuition about semantics which was not explicitly stated by Morris, but which is still held by many persons. According to this intuition semantics is the study of conventional content, while pragmatics is the study of sender and receiver determined actual content. If one chooses this way of distinguishing the study of semantics from pragmatics, semantics should encompass the conventional content of interjections, questions and imperatives, even though it can not easily be studied within the theory of reference.

This in fact brings me to a third problem, namely the interrelation between truth conditions (which, by people like Donald Davidson (Davidson 1967) are supposed to be the central subject area of semantics), conventional content and the determination of truth conditions. It is obvious already from what has been said above that there is no straightforward identification of truth conditions and conventional content available. Conventional content is relevant to many more types of expression than truth conditions are.

But perhaps a slightly weaker thesis is tenable, i.e. that truth conditions are identifiable with the conventional content of declarative sentences. Thus, the study of truth conditions could be construed as an aspect of the study of conventional content. However, this view is also problematic. This becomes clear when one considers how truth conditions are determined. Consider the following sentence.

(67) He saw all the small ones.

The truth conditions of any sentence depend on the proposition the sentence expresses, and the proposition expressed by (67) can only be determined via a set of what Montague 1974, chapters 3 and 4, and Lewis 1971 have called pragmatic coordinates. We have to be able to determine the following things about (67) in order to find the proposition it expresses.

1. Who is the male human referred to by *he*?
2. What is the reference time of the proposition?
3. What is the speaking time of the utterance (67)?
4. What is the universe of quantification for *all* (all small *frogs* or all small *boys*, etc)?

5. What is the universe of comparison for *small* (here coinciding with the universe of quantification)?
6. What is the reference place of the proposition?

If these questions can not be settled, the truth conditions of (67) can not be determined. It will not be possible to give (67) a truth value and it will not be possible to say what proposition it expresses.

Thus, all the questions 1 - 6 are relevant for the determination of the truth conditions of (67), but are they relevant for the determination of its conventional content? The answer I would like to give to this question is a partly yes- and partly no- answer.

We could view the listener's interpretation of a sentence as a function the arguments of which are: conventional content, direct observation, and a set of relevant presuppositions, and the value of which is a reconstruction of the speaker's intended content. (See section 10.5.3). The algorithm connected with this function will be based on mutual cooperation between speaker and listener. The listener will, on the basis of his direct observation of the situation at hand and the background assumptions which he presumes the speaker to be making, construct an interpretation which allows him to satisfy the conditions set by the application criteria (=conventional content) of the linguistic expressions which the sender is using. For example, for the morpheme *he*, the listener will try to find a 'situationally unique male entity' which would make a speaker's utterance of (67) reasonable and informative.⁸⁵

- (68) When he put the glass on the table it broke
(69) When the tree fell on the table it broke

For the morpheme *it* the conventional content is even less specific. Perhaps it is something like 'situationally unique entity'. Examples (68) and (69) relatively clearly show how the interpretation of *it* is dependent on finding a referent for *it* which would satisfy the requirements of its conventional application criteria and at the same time make the interpretation of the sentences reasonable and informative. The reference of *it* will, thus, in (68) and (69) depend on what assumptions we usually make about the weight and brittleness of glasses, tables and trees.

The conventional content is, thus, just one of the factors a listener uses in order to determine what proposition has been expressed. The questions in 1 - 6 therefore do not pertain to conventional content, but rather to some of the tasks which the listener must perform in order to determine what proposition has been intended by the speaker.

Similarly, the listener must also supply time and place coordinates consistent with a cooperative constructive interpretation of the conventional content in order to determine when and where the proposition is supposed to be valid.

If there is no explicit conventional indication of time and place in the sentence itself, e.g. *He saw all the small ones on Saturday in Copenhagen*, the time and place coordinates will

⁸⁵ For an interesting discussion of some of the factors that determine the reference of noun phrases, see Dahl 1976.

usually be the time and place of the speech situation at hand. I say 'usually', since the 'historical present' shows that the most reasonable time of validity for a proposition need not always be the present one. Tense operators can then be viewed as placing conditions on the relation of the validity time to the reference time. In similar ways the listener determines the universes of comparison and quantification by cooperative interpretation.

The values of this 'cooperative interpretation' function in conjunction with more purely conventional semantic composition functions enable us to find out what proposition is being expressed. The proposition expressed can not be found without using non-conventional pragmatic information besides conventional content as an argument for pragmatic rules of interpretation. The proposition expressed and the truth conditions can, therefore, never be given by the information conventionally tied to a linguistic expression alone, which shows that conventional content can not be identified with truth conditions. My conclusion is therefore that truth conditional semantics as applied to natural languages with, for example, deictical expressions, and not just to artificially constructed ones, is fundamentally pragmatic. There is no 'pure semantics' in Carnap's sense (Carnap 1959, 11-12 ff.) for natural languages.

This assertion is, of course, further corroborated if we consider the cases where the proposition a speaker intends to express differs more radically from conventional content, as in irony, metaphor or indirect speech acts. Thus, we must use not only conventional content to determine what proposition is being expressed but also assumptions of naturalness, normality, rationality, agenthood and ethical cooperation, which I have argued to a large extent are non-conventional.

16.3 COMPLETION AND SPECIFICATION

I would here like to make a small digression to introduce a distinction concerning the ways propositions are determined, which I find useful. I will call the conventional content of a declarative sentence which is not referentially anchored⁸⁶ an *incomplete proposition*. In *complete propositions* become *complete propositions* or simply propositions by being referentially anchored.

(70) Bill is whistling Dixie

Thus, (70) becomes referentially anchored when the time and space coordinates of (70) can be provided, and it can then be assigned a truth value. I would like to claim that this *process of completion* is essentially the same as what I referred to as *making more precise* in section 3.3. In other words, I view incompleteness as a form of vagueness⁸⁷ (see Allwood-Andersson 1976, 95-96 for an account of vagueness, 'making precise' and

⁸⁶ By the 'referential anchoring' of a proposition I mean the act of relating the proposition to a certain state of affairs (with determined spatio-temporal coordinates) for which it is to be valid. See Rommetveit 1974 for a discussion of 'referential anchoring'.

⁸⁷ This is, of course, a slight extension of the ordinary use of the term *vagueness*, but still sufficiently close, I think, to merit the label *vagueness*.

specification).⁸⁸ I want to distinguish this process of specification from the process of limiting the number of incomplete propositions expressed by a certain sentence.

'Specification' reduces ambiguity while 'making precise' reduces vagueness. Consider (71).

(71) Marvin takes a photo of Priscilla on the balcony

(71) is multiply ambiguous as to what is taking place on the balcony: 1. Marvin could be alone on the balcony. 2. Priscilla could be alone on the balcony. 3. Both Marvin and Priscilla could be on the balcony. 4. Neither Marvin nor Priscilla need be on the balcony. If we were to reduce this ambiguity to the reading where Marvin is alone on the balcony taking a picture of Priscilla on the street, we would have an example of specification in this ambiguity reducing sense, since the resulting interpretation would still be a proposition that was incomplete, i.e. without referential anchoring. Thus, specification does not reduce incompleteness; but it reduces ambiguity and unspecificity. As an example of what I mean by the reduction of unspecificity, consider (72).

(72) The painting is beautiful

Suppose that (72) is uttered by A who is only interested in the aesthetic effects of color-choice, and then suppose it is uttered by B who is only interested in the aesthetic effects of painting techniques. In uttering (72), A and B might then be intending to express two specified incomplete propositions which might possibly be incompatible. (72) is thus unspecific though not ambiguous as to what content A and B really intend to signal.

If one likes one could regard 'ambiguity' as unspecificity with regard to conventional content, i.e. as an indeterminateness of content due to conventional semantic rules, while 'unspecificity' simpliciter, could be regarded as unspecificity with regard to intended content, i.e. an indeterminateness due to factors such as differing background assumptions.

A's and B's ability to understand each other's intended content, i.e. to reduce unspecificity will depend on how, familiar they are with each other's presuppositions and beliefs about the world. If they have no such familiarity, they might well find that their agreement is only apparent, i.e. with increased intentional depth (see sections 7.4.4 and 8.4.4) what on the surface looks like agreement might turn into disagreement.

I believe that this way of using specification is essentially the same as in section 2.5, and that the specification of intended content is a special case of the specification of intention. In any case, it seems clear that specification (including disambiguation of conventional content) and *completion* are two important but different traits of the pragmatic determination of what proposition a sentence is actually intended to express.

16.4 SYNTAX, SEMANTICS AND PRAGMATICS RECONSIDERED

How should we conceive of syntax, semantics and pragmatics if the old rules of thumb fail? If we must have such a division, I believe the best way is to proceed by enumeration

⁸⁸ See also Naess 1966, chapter 2, for a slightly different account of the relations between these concepts.

of problems which, on the basis of partly cultivated pretheoretical intuitions, one finds typical of the three areas. Below, I will, therefore, indicate one way in which this could be done. However, it should perhaps be pointed out that such a division is always an abstraction for descriptive purposes, and that the components which are described are actually integrated and dependent on each other.

Syntax: Conceived of broadly, syntax is the study of how pragmatic and semantic functions are realized phonologically and morphologically, and of how the phonological and morphological elements are structured and ordered. It includes the study of such dependency relations between morphological elements as reaction, concord and agreement. It includes the study of how elements are structured through intonation and stress.

Semantics: Semantics could perhaps be regarded as the study of content characteristics and content structure. Thus, lexicology, conceptual analysis and the study of the parameters determining semantic fields should be included. But also the study of all semantic relations that can obtain between units of content (both concepts and propositions), e.g. entailment, presupposition, implicature, oppositeness, inclusion, negation, predication and attribution etc. (see Allwood-Andersson 1976) have a place within semantics. Some of these relations are based on reference and truth conditions, some are not. Semantics should also include the study of the nature of meaning, sense and reference. Further, semantics should include the study of information structure. What would be the best way of describing things like new, important or background information? What are the relations between the two types of information? From syntax, one would then require an analysis of how the various semantic distinctions are realized. Finally, it should include the study of conventional semantic composition rules, i.e. the study of how the content of a complex linguistic unit is determined by the content of its simple constituent units and the syntactic structure of the complex unit.

Pragmatics: Pragmatics could be viewed as the study of the factors which determine what information is actually communicated by a sender and apprehended by a receiver; the different communicative intentions, purposes, motives and reasons; the different ways in which a receiver can react to information; the relationship between sender intention, receiver reaction and other psychological and sociological phenomena, such as systems of emotions and attitudes (including cognitive ones) and phenomena like social structure, role relations, power and solidarity. Further, it should study the relationship between conventional content and the intended content of a sender or the apprehended content of a receiver. It should determine to what extent this relationship is dependent on various contextual factors such as shared background assumptions.

It should study how such dependence on pragmatic factors affects the phonology, morphology, syntax, content and purpose of the utterances expressed and apprehended. Finally, it should determine in greater detail the conventions, strategies and non-conventional norms that govern communicative interaction. A study carried out along these lines seems to me to provide a reasonable indication of what a 'pragmatic' contribution to the general study of the linguistic, psychological, and social phenomena related to communication, could be like.

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P R E F A C E	vi
Part 1 Action And Cooperation	1
1 INTRODUCTION	1
1.1 WAYS OF DOING LINGUISTICS	1
1.2 LINGUISTIC THEORY AND PRAGMATICS.....	1
1.3 AN OUTLINE OF THE THESIS	2
1.4 METHODOLOGY.....	3
2 ACTION.....	5
2.1 ACTION AND BEHAVIOR	5
2.2 REASONS, GROUNDS AND MOTIVES.....	5
2.3 'DE DICTO'- 'DE RE' LIKE PHENOMENA AND THE DIFFERENCE BETWEEN OBSERVER AND AGENT.....	9
2.3.1 'DE DICTO'- 'DE RE' AND 'DE INTENTIONE'	9
2.3.2 MISLEADING CIRCUMSTANCES	10
2.4 INTENTION, SIGNIFICANCE AND THE MEANING OF ACTION.....	10
2.4.1 INTENTIONS, CAUSALITY AND CONSCIOUSNESS	10
2.4.2 PURPOSE AND MEANING.....	13
2.5 IDENTIFICATION OF ACTION	13
2.5.1 DISAMBIGUATION AND SPECIFICATION	13
2.5.2 PLANS AND PARCELS OF INTENTIONS.....	14
2.5.3 SPECIFICATION AND BASIC ACTIONS	15
2.6 RATIONALITY.....	16
3 CONVENTION	19
3.1 CONSENSUS AND ARBITRARINESS	19
3.2 INSTITUTIONALIZATION AND CONVENTIONAL BELIEFS	20
3.3 CONTEXTUAL DEPENDENCE.....	20
3.4 CONSTITUTIVE AND REGULATIVE CONVENTIONS	21
3.5 DESCRIPTIVE PRESCRIPTIVE.....	23
3.5.1 OBSERVER AND PARTICIPANT	23
3.5.2 PRESCRIPTIVE-DESCRIPTIVE AND REGULATIVE-CONSTITUTIVE.....	23
3.6 ON THE NATURE OF LINGUISTIC DESCRIPTIONS	24
3.6.1 CORRECT USAGE.....	24
3.6.2 VARIATION	25
3.7 ON THE NATURE OF LINGUISTIC CONVENTIONS.....	25
4 CONSCIOUSNESS OF THE MEANING OF ACTION	28
4.1 ROLE-PLAYING	28
4.2 SOCIALIZATION AND INTERNALIZATION	30
5. NORMAL RATIONAL ACTION AND COOPERATION.....	32
5.1 THE TYPICAL AGENT	32
5.1.1 SOME OF THE TRAITS OF A TYPICAL AGENT	32
5.1.2 PRINCIPLES, NORMS AND ASSUMPTIONS OF NORMAL RATIONAL AGENTHOOD.....	34
5.1.3 SEVEN PRINCIPLES OF NORMAL RATIONAL AGENTHOOD	34
5.1.4 DEGREES OF RATIONALITY AND NORMALITY	38
5.2 THE SOCIALIZED AGENT AND COOPERATION.....	38
5.2.1 NORMS AND CONVENTIONS	38
5.2.2 COOPERATION	40
5.2.3 MUTUAL CONSIDERATION	41
5.2.4 A DEFINITION OF IDEAL COOPERATION.....	42

5.3	CONVENTIONS, COOPERATION AND THE PRINCIPLES OF NORMAL, RATIONAL ACTION.....	43
5.3.1	CONVENTION AND COOPERATION	43
5.3.2	IDEAL COOPERATION	44
Part 11	Communication.....	48
6	INTRODUCTION.....	48
7	THE SENDER.....	49
7.1	INDICATORS.....	49
7.2	INDICATIVE BEHAVIOR	50
7.2.1	BEHAVIORAL INDICATORS.....	50
7.2.2	CLASSIFICATION ACCORDING TO MOTOR ACTIVITY	52
7.2.3	EXPRESSIVE FUNCTION	52
7.3	MANIPULATION.....	54
7.4	DISPLAY	55
7.4.1	ACTS OF DISPLAY	55
7.4.2	REPRESENTATIVE AND NON-REPRESENTATIVE DISPLAY AND DISPLAYORS.....	55
7.4.3	CONCEALED DISPLAY AND DECEPTION	56
7.4.4	MANIPULATORY INTENTIONS, CONTENT, INTENTIONAL DEPTH AND TOTAL ACTION MEANING	57
7.4.5	MATTER AND QUALITY	58
7.4.6	CONTENT-QUALITY AND CONTENT-MATTER	59
7.4.7	INTENDED CONTENT - AND INFORMATION INDICATED TO RECEIVER AND OBSERVER.....	61
7.5	CONVENTIONALLY REGULATED BEHAVIOR, DISPLAY AND MEANING ...	61
7.5.1	CONVENTIONAL BEHAVIOR.....	61
7.5.2	CONVENTIONAL BEHAVIOR AND MEANING	62
7.6	DISPLAY, CONTEXT AND BUDDING COOPERATION	62
7.7	INDICATORS, BEHAVIOR, BEHAVIORAL INDICATORS, MANIPULATION AND DISPLAY.....	63
7.7.1	IMPLICATIVE RELATIONS	63
7.7.2	COMMUNICATIVE ACTIVITIES AS INTENTIONAL ASPECTS OF THE SAME BEHAVIOR	64
7.8	UNINTENTIONAL BEHAVIORAL INDICATORS AND DISPLAY.....	64
7.8.1	MANNER INTENTIONS AND UNINTENTIONAL BEHAVIORAL INDICATORS	64
7.8.2	DISPLAY AND INTENTIONAL CONTROLLABILITY	65
8	THE RECEIVER.....	66
8.1	APPREHENSION	66
8.1.1	INFLUENCE AND APPREHENSION	66
8.1.2	PURE APPREHENSION AND PURE DISPLAY	66
8.2	DOUBLE COMMUNICATION	67
8.3	SOURCES AND MANNERS OF APPREHENSION.....	67
8.3.1	SENSORY MODALITIES, MEMORY, IMAGINATION AND INTUITION ...	68
8.3.2	S-INTERPRETATION.....	68
8.3.3	INFERENCE	68
8.4	FURTHER INTENDED REACTIONS IN THE RECEIVER.....	69
8.4.1	EMOTIONAL STATES, ATTITUDES AND BEHAVIOR	69
8.4.2	BELIEF, UNDERSTANDING, ACCEPTANCE AND CONVICTION.....	70
8.4.3	PROPOSITIONS AND BELIEF.....	70

8.4.4	UNDERSTANDING	71
8.4.5	ACCEPTANCE AND CONVICTION.....	73
8.5	APPREHENSION, UNDERSTANDING, S-INTERPRETATION AND BELIEF.....	73
8.6	SUMMARY	74
8.7	PRELIMINARY REMARKS ON THE RELATION BETWEEN SENDER AND RECEIVER ACTIVITY	75
9.	FULL-BLOWN COMMUNICATION'	76
9.1	SCARING AS MANIPULATORY DISPLAY	76
9.2	DISPLAYORS, SIGNS AND D-ASSUMPTIONS.....	77
9.3	SIGNALS.....	78
9.3.1	SECOND ORDER DISPLAY AND SIGNALS.....	78
9.3.2	REFERENCE AND SIGNAL-CONTENT	78
9.3.3	SIGNALLING AND CONVENTIONAL ACTION	79
9.4	FULL-BLOWN COMMUNICATION.....	80
9.4.1	A DEFINITION OF FULL-BLOWN COMMUNICATION	80
9.4.2	GRICE'S NOTION OF 'MEANING _{NN} '	81
9.5	COMMUNICATIVE ACTIVITIES AND ENTITIES	82
9.6	DISPLAY, SIGNAL AND SOCIAL SELF-CONSCIOUSNESS.....	84
10.	CONVENTIONALIZATION.....	86
10.1	CONVENTIONALIZED DISPLAY	86
10.2	SYMBOLS.....	87
10.2.1	A Definition of Symbol.....	87
10.2.2	CONVENTIONAL CORRECTNESS	88
10.2.3	CONVENTIONAL FORCE	88
10.3	CONVENTIONAL CONTENT	89
10.3.1	MODE, MOOD, CONVENTIONAL CONTENT-MATTER AND CONVENTIONAL CONTENT-QUALITY	89
10.3.2	THE TRADITIONAL CATEGORY OF MOOD.....	90
10.4	SOME FURTHER EFFECTS OF CONVENTIONALIZATION.....	93
10.4.1	SOLILOQUY.....	93
10.4.2	INTENDED COMMUNICATIVE CONTENT, CONVENTIONAL CONTENT AND APPREHENDED CONTENT.	93
10.5	MORE REGARDING THE CORRESPONDENCE BETWEEN INTENDED CONTENT, CONVENTIONAL CONTENT AND APPREHENDED SIGNIFICANCE	96
10.5.1	BREAK OF THE TIE BETWEEN INTENTION, CONVENTION AND APPREHENSION.....	96
10.5.2	SENDER INTENTION AND CONVENTIONAL CONTENT.....	96
10.5.3	INTENDED CONTENT AND APPREHENDED SIGNIFICANCE AS FUNCTIONS OF CONVENTIONAL CONTENT.....	97
10.5.4	INDIRECT SPEECH ACTS.....	97
10.5.5	IRONY.....	98
10.5.6	COMMON BACKGROUND ASSUMPTIONS	98
10.6	NON-SIGNALLED SYMBOLS	99
10.6.1	NON-COMMUNICATIVE SYMBOLS	99
10.6.2	DISPLAY OF SYMBOLS.....	99
10.6.3	USE AND MENTION.....	100
10.6.4	DISPLAY CONCURRENT WITH SIGNALLING.....	100
10.7	SUMMARY OF THE RELATIONS BETWEEN SYMBOLS AND COMMUNICATIVE ACTIVITIES	101
10.7.2	INDICATORS, SIGNS AND SYMBOLS	101

10.7.4	SYMBOL VEHICLES AS COMMUNICATIVELY RELEVANT	103
10.8	THE GENESIS OF SYMBOLS	104
11	FULL-BLOWN COMMUNICATION AS IDEAL COOPERATION	105
11.1	NORMAL RATIONAL SENDERS AND RECEIVERS	105
11.2	A DEFINITION OF IDEAL COOPERATIVE FULL-BLOWN COMMUNICATION	107
11.3	THE IDEALLY COOPERATIVE SENDER.....	109
11.3.1	INTENTIONAL AND PURPOSEFUL COOPERATIVE COMMUNICATION 109	
11.3.2	VOLUNTARY AND FREE COOPERATIVE COMMUNICATION	110
11.3.3	CONSIDERING THE MOTIVATION, PLEASURE AND PAIN OF THE RECEIVER.....	110
11.3.4	CONSIDERATION OF THE RECEIVER'S POSSIBILITY TO PERFORM COMPETENT AND ADEQUATE ACTIONS	111
11.4	THE RECEIVER AS A TRUSTING COOPERATOR	113
11.4.1	CONSTRUCTIVE COOPERATIVE INTERPRETATION	113
11.4.2	MISUNDERSTANDINGS.....	114
11.4.3	METAPHOR	115
11.4.4	FLOUTING AND CLASH	115
Part 111	Communicative Acts.....	117
12	INTRODUCTION	117
13	THE ONTOGENESIS OF COMMUNICATIVE ACTS	118
13.1	THE RELATION BETWEEN CHILD AND ADULT COMMUNICATION	118
13.2	INDICATIVE BEHAVIOR	118
13.3	MANIPULATION AND DISPLAY	118
13.3.1	MANIPULATION.....	118
13.3.2	DISPLAY	119
13.4	RITUAL, CONVENTION AND COMMUNICATION.....	120
13.4.1	RITUALIZED GAMES WITH VOCAL PARTS.....	120
13.4.2	CONVENTIONALIZED MANIFESTATIONS OF MANIPULATION	122
13.4.3	THE MOOD OF POINTING AND REFERENCE.....	123
13.5	HOLOPHRASTIC UTTERANCES.....	124
13.6	UNRAVELING OF PRESUPPOSITIONS AND DIFFERENTIATION OF BEHAVIOR.....	126
13.7	SUMMARY OF THE HOLOPHRASE	127
13.8	A TENTATIVE TAXONOMY OF SOME OF A CHILD'S EARLY COMMUNICATIVE AND LINGUISTIC ABILITIES.....	127
13.9	SPECULATIONS ON DEVELOPMENTAL SEQUENCE	130
13.9.1	HYPOTHETICAL DEVELOPMENTAL SEQUENCE.....	130
13.9.2	THE HOLOPHRASE AND COMMUNICATIVE DEVELOPMENT	131
14	COMMUNICATIVE ACTS.....	133
14.1	THE FELICITY CONDITIONS OF A COMMUNICATIVE ACT AND THE APPLICATION CRITERIA OF A COMMUNICATIVE ACTIVITY TERM	133
14.1.1	GENUINENESS, COMPETENCE, ADEQUACY, ETHICALNESS, CONVENTIONAL CORRECTNESS AND SUCCESS	133
14.1.2	APPLICATION CRITERIA AND TRUTH CONDITIONS	134
14.2	THE PERFORMATIVE HYPOTHESIS	136
14.3	ORIENTATION, INTENTION AND REACTION.....	138
14.3.1	THE SENDER- OR RECEIVER-ORIENTATION OF AN ACTION.....	138
14.3.2	A TEST FOR INTENTIONALITY AND RECEIVER REACTION	139

14.3.3	THE COMMUNICATIVE STATUS OF THREATENING.....	140
14.4	THE SEMANTIC FIELD OF COMMUNICATIVE ACTIVITY VERBS.....	141
14.4.1	SOME OF THE INSTRUMENTAL PARAMETERS	141
14.4.2	INSTRUMENT, CONVENTION, ADEQUACY AND COMPETENCE.....	143
14.4.3	EXPRESSION OF EMOTION.....	144
14.4.4	EXPRESSION OF ATTITUDE.....	144
14.4.5	THE STATUS OF ATTITUDE TERMS.....	145
14.4.6	THE PURPOSIVE PLAN AND MANIPULATORY INTENTIONS	146
14.4.7	CONTEXTUAL REQUIREMENTS ON SPEECH ACTS	148
14.4.8	INSTITUTIONALIZED PERFORMATIVES	150
14.5	THREE OTHER APPROACHES TO COMMUNICATIVE ACTIVITIES.....	151
14.5.1	AUSTIN'S ACCOUNT OF LOCUTIONARY, ILLOCUTIONARY AND PERLOCUTIONARY ACTS	151
14.5.2	SEARLE'S THEORY OF SPEECH ACTS	154
14.5.3	BÜHLERS NOTIONS OF SYMPTOM, SYMBOL AND SIGNAL FUNCTION 157	
15	CONVERSATION AND LANGUAGE GAMES.....	158
15.1	SOME DATA ON CONVERSATION.....	158
15.2	LANGUAGE GAMES	160
15.3	FACTORS DETERMINING LANGUAGE GAMES.....	162
15.4	THE 'INDIRECT RECURSIVENESS' AND 'PUSHDOWN-STACK' CHARACTER OF LANGUAGE GAMES	164
16	SYNTAX, SEMANTICS AND PRAGMATICS	168
16.1	THE CLASSICAL DISTINCTION.....	168
16.2	CONVENTIONAL CONTENT AND TRUTH CONDITIONS	169
16.3	COMPLETION AND SPECIFICATION.....	171
16.4	SYNTAX, SEMANTICS AND PRAGMATICS RECONSIDERED.....	172
	BIBLIOGRAPHY.....	174