LANGUAGE AND LOGIC

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Johan Van der Auwera

Language and Logic
A Speculative and Condition-Theoretic Study

LANGUAGE AND LOGIC

A Speculative and Condition-Theoretic Study

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"Well, perhaps: you never know: anything can happen. Nature is bountiful, and full of surprises, and there is plenty more ... Think cornucopian." (Seddon 1972: 494)

"Thus what is needed is a counterpart of Occam's law — a law stipulating that entities must not be suppressed below sufficiency.

This principle used as a methodological tool would separate compounds of various constituents passing for homogeneous into their diverse components. It might be called a *prism* resolving conceptual mixtures into the spectrum on their meanings or, if one wishes to remain in the tonsorial domain of the razor, a *comb* disentangling and straightening out the various threads of thought.... In a more general form — as it were, as a *Law against Miserliness* — the principle might be stated:

it is vain to try to do with less what requires more

This law may also be construed as a semantic maxim opposing equivocations. And while synonyms are bad, equivocations are worse." (Menger 1979: 106)

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PREFACE

This book is in part the reflection of a purely personal problem, *viz.* my attempts to come to grips with modern logic. Despite my efforts in studying the present-day orthodoxies of logic, I have long felt myself to belong to the uninitiated, described by C.I. Lewis as far back as 1912:

"symbolic logic appears to the uninitiated as an *enfant terrible* which intimidates one with its array of exact demonstrations, and demands the acceptance of incomprehensible results." (C.I. Lewis 1912: 522)

As a result I now blame my frustration on logic itself. This book justifies this blame with a philosophical critique of modern logic, and with the program and the partial construction of a new, so-called 'reflectionist' and 'condition-theoretic' logic.

The logic is condition-theoretic because of the importance of conditionality notions. What makes the logic reflectionist is the underlying principle that language reflects both the one constituent of reality called 'mind', and reality at large. As I am more of a linguist than a student of the mind or of reality as such, reflectionist logic will be put into the context of an overall, reflectionist theory of meaning. For the latter enterprise I will reintroduce the term 'Speculative Grammar'. The original reference of this term are the Scholastic treatises written from the perspective that language reflects both mind and reality — Latin 'speculum' means 'mirror'.

Language and logic is a revision of three fourths of a doctoral dissertation (Van der Auwera 1980c), presented at the University of Antwerp in July 1980.¹ Both the original research and the revision were made possible through a fellowship of the Belgian National Science Foundation and an affiliation with the Germanic Department of the University of Antwerp (U.I.A.). Part of the revision emanated from courses taught at the Universities of Cologne (Winter 1980-1981) and Antwerp (Fall 1981 and Fall 1982). Among the many people I am grateful to, I must single out Wim A. de Pater, who tested my materials in a course taught at the Catholic University of Louvain (Spring 1981), Herman Parret, Hubert Cuyckens, Jacob Mey for their editorship, Heinz Vater for his hospitality during a stay in Cologne, and Louis Goossens

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for the many aspects of the many years of guidance and support. I also thank Alison Woodward, my favorite sociologist, and the Swedish semla bakers.

This book is meant as a proposal. As it lies in the nature of proposals to be judged and amended, I expect that most of what follows calls for further investigation. Obviously, some of the forthcoming claims will turn out to be false. May this confession be an incentive to further research.

SYMBOLS AND ABBREVIATIONS

(references to first occurrences)

```
SOA, 18
OOM, M, SD, ID, 27
H, S, 45
RL, 61
SDL, 73
wff, 76
RSL, 77
RPL, 78
CPL, \land, v, \rightarrow, T, F, 79
s, 91
s^e, s^i, s^{e,i}, 92
s^{i,e}, s^{ei}, n^e, 94
n^{i}, n^{ei}, 95
m^{i,i}, n^{i,e}, 96
ns, 97
T<sub>s</sub>, 103
T_{ns}, 105
F-SOA, T_{s,ns}, T_{s,s}, 108
F_{s}, U_{s}, F_{s,s}, F_{s,n}, F_{s,s,n}^{s,s,n}, F_{s,s,n}^{e}, F_{s,s,n}^{e}, U_{s,s,n}^{e}, T_{s,s}^{e}, 116
B, B^p, B^{-p}, 122
!, ~, \diamondsuit, 133
\lozenge^*, U_s^*, \lozenge_s, U_{s_s}, 138
!<sub>2</sub>, ~<sub>2</sub>, !<sub>4</sub>, ~<sub>4</sub>, 139
\lozenge_*^*, U_{*_s}^*, 141
!_5, \sim_5, 143
!, \(\perp\), 150
≯, 159
```

$$n^*$$
, s^* , 160
>, 165

 \bigcirc , (F_s) , (S_s)

CHAPTER I METHODOLOGY, CONTENTS, AND RELEVANCE

I think that it is obvious that language reflects both mind and reality. This idea, which is probably as old as common sense and certainly as old as Aristotle's philosophy, is also vague. In this book I will try to clarify it. More particularly, I will attempt to elucidate the reflection idea by turning it into the cornerstone of a linguistic theory of meaning. Interestingly enough, I am not the first to embark on such a project. In the 13th and 14th centuries, some linguistically minded Schoolmen devised reflectionist or, as they called it, 'Speculative' grammars (see Bursill-Hall 1971; Ashworth 1978; Covington 1982). It is precisely their general outlook, but *not* the details, that the present study attempts to revive.

That the modern meaning of 'speculative' suggests that I will be speculating a lot is a felicitous pun. Most of what lies ahead is indeed philosophical and conjectural. This study is not an effort to solve a 'puzzle' (Kuhn 1962) generated by a specific linguistic framework or 'paradigm' by means of a set of paradigmatic routines. It is more an attempt to *construct* a general framework. I will try to design a model more than to apply one that already exists. The conjectural or speculative nature of the inquiry does not make it unempirical, however. My armchair conjectures are geared towards a comprehension of empirical matters such as language, mind, and reality. I do not want to write fiction here. But what their conjectural nature does imply is that some of my claims will not have any deeper justification than my hypothesis that the claims are self-evident.

Even though I claim that the speculations whose only vindication consists in an appeal to self-evidence can still be empirical, I am aware that the word 'empirical' is often understood in a different sense, according to which a hypothesis is empirical only if it can be subjected to a paradigmatically defined testing or falsification procedure (see Harré 1972; Parret 1979b). Unless the judgments on what is self-evident and what is not were taken to result from a test or falsification procedure of a paradigm of some sort — I have never seen such a position defended, most of this study would qualify as unempirical.

I have no fundamental qualms about this definition of the term 'empirical'. Still, I have some reasons to favor a wider notion. First, it seems clear to me that science is always a blend of the empirical and the unempirical (restricted sense) and that it may furthermore be difficult to separate the two. Thus there is something to be said for the view that all of science has a degree of empiricalness, which amounts to the claim that all of science is empirical in the wider sense (my sense). Second, by calling self-evident claims 'empirical', I want to stress that their subject matter is simply reality and therefore no different from the subject matter of experimentally testable or falsifiable claims. Third, with this notion of empirical self-evidence I want to guard myself against the defeatist and all too comfortable view that the unempirical (restricted sense) fragments of science cannot really be called wrong.

My employment of the term 'empirical' is not new. It relates to Quine's usage. One of the keynotes of Quine's work is that logic and philosophy are truly empirical sciences. The terminological similarity should not be overestimated, though. There are large differences of opinion on the question of how empirical science could (or should) be done. In ontology, for example, I am much more conservative than Quine, but in logic, I am much more unorthodox. An important point is that I seem to value the role of self-evidence more than Quine does, at least more than the Quine of the earlier, pragmatist writings.² When in "Two dogmas" (Quine 1961c [1951]) Quine offers advice for the choice between two rival general conceptual schemas, he does not say "Take the one that you find self-evident", for I assume that Quine believes that the defenders of any seriously held conceptual schema take it to be self-evident, but "Take the simplest one" (1961c: 45-46) and "Take the most fruitful one" (44).

Self-evidence does not appear in a vacuum. In the present case, it is intended to emerge as a crystallization of my observations and intuitions of the objects of study, as well as of my understanding of some of the commonsense concepts and ordinary language meanings related to the objects of study (cp. Allwood 1978: 1-3). Such a formation process may go astray and the crystal might shatter. In other words, self-evident beliefs are by no means immune from revision. That a self-evident belief is mistaken is the conclusion one might have to draw in the face of recalcitrant experience or of a second self-evident belief inconsistent with the first. In fact, the present work is the result of much refutation of earlier speculation. Furthermore, part of the purpose of making it public is to invite others to falsify and to further speculate.

When the meaning of a word is self-evident, the word can be called a

'primitive'. Every single word of the English language that I have used so far is such a primitive. Some of the ontological, psychological, and linguistic ones will later be given a deeper clarification. But for absolutely all of them, I assume that the reader *already* understands them. This assumption is probably safe. If the reader has reached this very sentence, it is likely that he or she has made sense of what precedes. To repeat, I assume that even the special ontological, psychological, and linguistic primitives that I will later try to clarify are intelligible. They are so basic that they appear everywhere, *not*, then, as objects of study, but as elements of the language I am now writing in. Given, for instance, that the reader has made sense of expressions like 'I must' and 'If such and such, then so and so', I can assume that he or she knows what I am talking about when I come to a discussion of necessity and implication. Obviously, this does not mean that the reader can put this knowledge into words.³

A second methodological point concerning primitives is this. Suppose that the study of a primitive has been successful. Doesn't, then, the additional information transform the primitive into a *technical concept*, something that is much more precise than the one that occurs in my ordinary discourse? In other words, doesn't the description have a stipulative effect? I believe that there is some truth in this. But there is nothing wrong with this technicalization. The investigation of a primitive may transfer it from ordinary English into a variant of jargonese English in the same way as a scientific inquiry may turn conglomerates of vague commonsense ideas into scientific models. And this is not unwanted.

So much for methodology. Let me now give a preview of what I will be doing with it.

The two things that are reflected in language are mind and reality. That is why I will devote some space to the *philosophy of mind* (philosophical psychology) and to *ontology*. After a brief consideration of what the philosophy of mind is, Chapter II expounds a very general and partial account of how the mind works. In particular, I investigate the nature of beliefs, desires, consciousness, and intentions. Since the mind is, in some sense, a part of the world, the chapter is embedded in an ontology, and since I am working towards a speech act theory, the chapter ends with some aspects of the *philosophy of action*. In the ontology, special attention is drawn to its definitional problems and to the concepts of minimal ontology, state of affairs, and possible world. In the section on the theory of action, I am especially concerned about the distinction between actions and events.

In Chapter III, the cognitive model of Chapter II is used to develop an ac-

count of basic speech acts, a reappraisal of the traditional distinction between the assertive, interrogative, imperative, and optative mood. The different basic speech act meanings, largely defined in terms of a reflection of mental states, are looked at in some detail. Another target is the problem of what it is for a speaker to mean something. Finally, a peculiar version of a division of labor between semantics and pragmatics is suggested.

In Chapter IV, a characterization and evaluation of present-day logic leads to a manifesto for a 'Reflectionist Logic'. This logic is to have a three-fold empirical interpretation. It must be a partial theory of reality, human reasoning, and of natural language. After a general clarification of the nature of these interpretations, I turn to a typology of conditions, a refinement of the traditional distinction between sufficient, necessary, and necessary and sufficient conditions. The next step takes us from condition theory to a theory of truth. The relation between the two theories is so close that the logic as a whole will be called 'condition-theoretic'. The most important features of the truth theory are (a) a radical dyadic interpretation of truth ('all truth is truth-of'); (b) the claim that the logic is 'two-supervalued', 'three-valued', and 'many-subvalued'; (c) the attempt to harmonize the Correspondence Theory of Truth with its rival theories, especially the Coherence Theory.

Chapter V sets out to construct a 'Reflectionist Condition-Theoretic *Propositional* Logic'. Propositional operators are defined in terms of the conditional typology. A deeper analysis of truth is offered, as well as of falsity and indeterminacy. The question of whether these operators are fundamentally dyadic or monadic leads to concepts of pseudo-monadicness and presupposition. The latter notion is also used in an analysis of truth-value paradoxes such as the Liar Paradox. A triadic account is offered for necessity, impossibility, and contingency, and the chapter culminates in an account of different types of conditionals.

It is obvious that the preceding agenda will confront us with a large number of problems. Not all of them will be mentioned explicitly. Some will only be hinted at in the margin. More importantly, though, some of the issues that *do* make it into the text will not get the full-fledged treatment one might have expected or wanted. There are two reasons for this. First of all, my undertaking is primarily concerned with natural language, which explains why the chapters on the philosophy of mind and ontology are much less developed than could have been the case. I only present those *fragments* of the respective disciplines that are relevant for my purposes. Secondly, one should not forget that it is my primary intention to design a *general* framework. It is only to be expected that

a general conceptual schema generates questions. Delimiting a set of speech act types as basic, for instance, immediately calls for a treatment of the non-basic ones. Similarly, when one prepares the ground for a modal, non-truth-functional, two-supervalued, three-valued, many-subvalued, propositional logic, one raises the question of the relation of this logic to other unorthodox and orthodox, *n*-valued, truth-functional and non-truth-functional, modal and non-modal systems. Conceivably, I could have worked out some of these and other details. But a local gain might have been a loss in the overall picture.

A restriction that deserves special attention is that the hypotheses presented in this book, although emphatically universalist, are based on my understanding of languages such as English and Dutch. This is a serious risk. It is possible that I only reincarnate Mr. Everyman, 'the natural logician', against whom Benjamin Lee Whorf has warned us. Mr. Everyman's problem is that he mistakes his way of thinking which "is perhaps just a type of syntax natural to Mr. Everyman's daily use of the western Indo-European languages" (Whorf 1956: 238) for the embodiment of the universal laws of thought and, I would add, the reflection of certain universal features of reality. A high-priority task for future research, therefore, is that of testing my armchair hypotheses against as wide a range of languages as possible.

Finally, a word on the relevance of the following 200 pages. If I may presuppose the relevance of linguistics, logic, and philosophy, I hope that my *Language and logic* will be relevant for two reasons: the *answers* it provides to old questions and the new *questions* it generates.

First of all, Language and logic should be a new discussion of old issues. The reflection idea itself is truly ancient. I have already expressed my hunch that it is probably as old as common sense. The one application that is reflected in the title of this work is the 13th-14th-century tradition of Speculative Grammar. But there are others. For one thing, the reflection idea is closely connected with the so-called 'Correspondence Theory of Truth'. For another, my reflectionism is also reminiscent of the picture theory of logical atomism (see Urmson 1967: 1-98) and of the reflection or copy theory of dialectical materialism (see Cornforth 1954: 27-40; Schaff 1973: 121-139; Lorenz and Wotjak 1977). Furthermore, as 'a reflects b' is more or less the same as 'a is a sign of b', 'a refers to b', or 'a represents b', the reflection thesis comes close to simply acknowledging that there are such things as intensions and extensions. So, though I do not want to create the impression that everybody has accepted or would accept the reflection thesis — there has been fierce opposition to all ideas listed above (see e.g. Rorty 1979) — it is clear that the reflection idea is a

persistent theme, and one that is not easily eradicated.

This old issue is here approached in a new way. It will become evident, for example, that I am not a proper Scholastic or logical atomist. It will also become clear, I hope, that the theory of meaning presented later is not to be equated with any extensionalist and/or intensionalist acount available.

There are other old and important issues. Here are a few:

- (a) How does the meaning component of a theory of language have to be structured?
- (b) What is the status of the distinction between assertive, interrogative, imperative, and optative sentences?
- (c) What is it for somebody to mean something?
- (d) What is the status of logic?
- (e) How does the material implication relate to the ordinary language 'if ... then'?
- (f) Is there any point in constructing a non-modal propositional logic? I will attempt to provide new answers. In the course of doing so, I will obviously draw on old answers, but some of them will be discarded as invalid.

It is good to realize that we are living in an era that allows the fundamental questions to be asked. Not so long ago, in fact, many of them were not quite respectable. The main linguistic paradigms disregarded or neglected the study of meaning. Similarly, much of 20th-century Anglo-Saxon philosophy was dissociated, through positivistic logicism or through Wittgensteinian therapy, from the traditional philosophical task of investigating the general properties of human existence. But now we can once again study the fundamental problems about meaning and even speculate about ontology and feel sure that these issues are judged relevant. Furthermore, Chomsky has made mentalism respectable again and, as we shall see, there are signs that even 'psychologism' may be losing its depreciatory connotations.

My second reason for claiming relevance is that this work will generate new questions. Some examples:

- (a) How do we deal with non-basic speech acts?
- (b) How does Reflectionist Propositional Logic relate to, say, Relevance Logic or the Gricean approach to propositional logic?
- (b) Are there any languages that mark the distinction between what will be called 'particular' and 'generic' conditionals?

It is apposite to say something about the relevance of *self-evidence*, too. It might be asked whether there is any point in advancing claims that are taken to

be self-evident. In a similar vein, the value of explaining primitives might be questioned, for, after all, everybody should already 'know' the primitives. The answers are easy. First, something that is self-evident for me may not be self-evident for somebody else. Second, perhaps self-evidence is actually one of the more decisive types of evidence there is. Compare, on this score, Kripke's opinion on the value of intuition:

"Of course, some philosophers think that something's having intuitive content is very inconclusive evidence in favor of it. I think it is very heavy evidence in favor of anything, myself. I really don't know in a way what more conclusive evidence one can have about anything, ultimately speaking." (Kripke 1972: 265-266)

Third, 'knowing' a primitive does not mean having full knowledge about it. For one thing, it may only be a knowledge-how to deal with, say, the word 'necessary' or with necessary situations, which does not encompass the ability to say what necessity is. For another thing, a knowledge-that about something may not include all that can be known about it. To take necessity again, one may know what necessity is, only in the sense that one can give a characterization that is sufficient to separate it from possibility. Increasing knowledge about primitive concepts, now, will be a matter of acquiring new partial knowledge, i.e. of charting new distinctions and of relating them to other concepts in new ways or to concepts they have not been linked up with so far. Displaying the network of relations surrounding a primitive is its explanation. It is worth stressing, however, that this enterprise is inherently limited. Each of the concepts that enter the explanatory relations of the network is just as much entitled to an explanatory network of its own. In this connection, Castañeda (1975: 57) rightly speaks about an "unavoidable circularity", "one of the basic predicaments of philosophy". This makes it all too easy to be a sceptic, of course. The sceptic can deny any relevance on the accusation of vagueness and circularity. Naturally, this argument sounds persuasive, for vagueness and circularity are indeed to be avoided as much as possible. But surely, we cannot avoid them 'more' than is possible. One should not ask for the impossible. The only remedy against scepticism is to change the sceptic, to turn him or her into a tolerant and even cooperative pragmatist. As Quine (1961b: 19) comments on the choice of an ontology:

"the question what ontology actually to adopt still stands open, and the obvious counsel is tolerance and an experimental spirit."

CHAPTER II FROM POSSIBLE WORLDS TO HUMAN ACTION

If the reflection thesis is taken seriously, it may be instructive to look at the mind, in particular, and at reality, in general, before coming to the linguistic aspects. This is basically the perspective from which most of this chapter, its philosophy of mind and its ontology, has been written.

Except for the opening section, which is largely concerned with the definitions of the philosophy of mind and of ontology, this chapter is perhaps the most constructivist of all. I will build up a model universe, an abstraction from the real one. Into this artificial environment, an homunculus will be introduced. This homunculus is not the real human being, but only a simplified and abstract counterpart. Naturally, the value of these artifacts should still be an empirical one. I assume that the idealizations and simplifications are justified. I take it, that is, that the relations and the entities of my model universe have their direct counterparts in the real universe or that the full-scale study of the latter could profit from the investigation of the former. These assumptions are not themselves in need of any further justification. In other words, their validity is fallibly self-evident.

This does not mean, however, that the model presented in what follows is the only possible one. On the contrary, I have no objection against a translation of my frame into another one, if the latter can be argued to be more convenient. In view of this relativity, I have furthermore tried to present my account of the structure of the universe and of the mind in a way that should not foreclose any of the great ontological options (realism, conceptualism, nominalism; idealism, materialism, etc.). The strategy of doing ontology and mixing in a large dosis of non-commitment, will be called 'minimal ontology'. Thus minimal ontology is a restriction on my enterprise. But that minimal ontology is possible at all will be argued to be a significant result.

The model is intended to be a substantial component of the linguistic analysis of the following chapter, and of the logic of chapter IV and V. For these purposes, I do not need any fully developed universe or mind models. So this chapter will be incomplete, both in scope and in depth of analysis. For the same reason, I will not trouble myself greatly to compare this account to

other accounts. Some parts of the analysis might be taken to be an 'over-jargoned' mystification of common sense or, if the reader is in a better mood, an explication of implicit knowledge. For a reason to be explained in the next few pages, the latter interpretation would not displease me. Connectedly, the reader might feel uneasy for no other reason than that he or she hoped not to have to spend any more time on such truly basic questions (about beliefs, desires, etc.) as the ones to be treated here. He or she might have expected these questions to have been settled a long time ago. If this expectation is not borne out, let me remind this reader of the fact that, for the last two thousand years or more, philosophers have been discussing very similar questions in rather similar ways. Yet philosophical inquiry has not come to an end, nor is this fact considered to be an intellectual scandal.

1. Philosophy of mind, ontology, and reflection

1.1. Philosophy of mind and reflection

What is the philosophy of mind? In one view, it is the study of a few very basic mental phenomena and relations like believing, imagination, emotion, 'willing', the relation between minds and brains, and the general relation between mind and matter. I will call this the 'realist' view. What the philosopher of mind would speculate on is the complexity of the mental phenomena and relations themselves, of the 'real stuff'.

The second approach will be called 'mentalist'.4 In this approach, the philosopher of mind would not (after all) directly speculate about the mind itself, but only about our thoughts and concepts about the mind. A prime example of the mentalist approach is Gilbert Ryle's classic *The concept of mind* (1949). Ryle only aims to "rectify the logic of mental-conduct concepts" (1949: 16). Whether he succeeds in this mentalism, incidentally, is another matter, for he sometimes writes like a realist and he has been interpreted as a realist (see Ayer 1963b: 23-24, 27-28). Note also that my description of Ryle as a mentalist forms a paradoxical contrast with the fact that Ryle is usually, because of his efforts to destroy the mind-body dualism ('the myth of the ghost in the machine'), considered a champion of anti-psychologism.

The mentalist easily slips into a 'nominalist'. If the philosopher of mind only deals with mental-conduct concepts, then perhaps he or she *really* only studies the meanings of our mental-conduct words. It is no coincidence that Ryle fits into a tradition of so-called 'linguistic philosophy' and that he can write that

"this [i.e. *The concept of mind*] as a whole is a discussion of the logical behaviour of some of the cardinal terms, dispositional and occurrent, in which we *talk* about minds". (Ryle 1949: 126; my emphasis; see also Mundle 1970: 41-45, 54-55, 91-109)

To describe the activity of a linguistic philosopher with the words of one who is disillusioned about it:

"due to philosophy's rather recent enlightenment, there seems little left for the subject beyond the analysis of just so many words, beyond the understanding of their meanings or, more generally, of various features of their behaviour." (Unger 1975: 318)

Why is it that one can claim to do philosophy of mind in three different ways? I will first discuss the relation between mentalism and nominalism. Realism will be brought in later.

I contend that nominalist and mentalist philosophy of mind are simply identical. To see this, let us ask again what nominalism amounts to. Nominalist philosophy of mind is the study of the linguistic conventions of such words as 'belief', 'will', and 'knowledge'. The linguistic conventions, now, that the philosopher of mind is interested in are certainly not the phonological or the morphological ones. How the word 'belief' is pronounced, whether it is a complex morpheme or whether it has a declension or not, is not of his or her concern. The conventions he or she is looking for are those of meaning or, what boils down to the same thing, the conventions of the use of the meaning. So the nominalist is interested in meaning. The mentalist philsopher of mind, on the other hand, is analyzing concepts. But are these activities really different? When one philosopher of mind is investigating the meaning of the word 'belief' and another one is analyzing the concept of belief, aren't they doing exactly the same thing? I am strongly inclined to a 'Yes'. I do not wish to contend that all inquiry of meaning is conceptual analysis, but at least to the extent that a philosopher of mind is interested in it, the two activities seem to coincide. The fact that they definitely coincide in the particular case of *The* concept of mind confirms this.

It might be objected that the argument is of little avail. What is the use of equating something as obscure as meaning with an equally obscure notion of concept? My answer goes as follows. First, if I am accused of obscurantism, then the objector will appreciate the fact that an account with one *obscurum*, *viz*. concept-meaning, takes precedence over an account with two entities shrouded in obscurity, *viz*. concept *and* meaning. Second, the primitives concept' and 'meaning' must here be taken in a pretheoretical sense. I have not

supplied any theory of concepts or of meaning yet. So the equation of nominalist and mentalist philosophy of mind must rely on ordinary language understanding, which is indeed vague. But remember what it means to give an explanation of primitives. Due to the unavoidable circularity of philosophy, to explain a primitive is to relate it to other primitives. I think that it is therefore safe to say that the hypothesis on concepts and meanings argued for above is at least the *start* of a theory. Whether the hypothesis can be held on to depends on the rest of the theory construction. The claim on the equation of nominalism and mentalism can only be tentative at this stage.

Be it a tentative claim, I think that it is a plausible one. Here is another way to reach it. A mentalist philosopher of mind wants to find out how humans *think* about matters of the mind. It is a commonplace to say that at least *some* thought is verbal. If we convince ourselves that the thinking that the mentalist philosopher of mind is interested in is verbal thinking, the case for equating nominalism and mentalism seems to be a good one (cp. Warnock 1958: 161). Now, to be convinced that the philosopher's attention goes to verbal thought is rather easy, for surely things like unverbalized brainstorms, if they exist, or the preverbal thinking that children might engage in are not his or her concern.

So much for the relation between mentalism and nominalism. It warrants emphasis that I have not claimed that mentalism and nominalism *always* reduce to each other, but in the case of the philosophy of mind they do. Henceforth, the position describable as the collapse of nominalism and mentalism will be called 'conceptualism'.

What is the relation between conceptualism and realism? It is clear that conceptualism and realism cannot be reduced to each other in the way of the reduction of mentalism and nominalism. How do we explain the coexistence of conceptualists and realists then? And how do we explain that realist and conceptualist philosophers of mind, despite their radically different idea of what they are doing, do not seem to have any more communication problems than any group of scientists or philosophers of the same paradigm? The answer is provided by the reflection thesis. Up to a certain point, human concepts (i.e. mind and language) reflect reality. When the realist is studying the mind, and a conceptualist colleague is looking at a concept of the mind, they are therefore, up to a certain point, studying the very same thing. So both realism and conceptualism are correct. When philosophers of mind are undertaking a realist analysis, they will often, unwittingly, produce a conceptualist one, too.

There is no way that I can prove the reflection thesis. As claimed before, however, I believe that it is intuitively sound, and we have just seen how the history of the definitions of the philosophy of mind makes it rather plausible, too. I hasten to add that the 'up to a certain point' of the claim that realism equals conceptualism, but *up to a certain point only*, hides a very serious problem. But I will not try to solve it. I intend to steer clear from the cutoff point. In this philosophy of mind, I will only deal with the clear cases of reflection. I will discuss beliefs, for instance, while taking it for granted that there are such things and that the generic human being has both a concept and a word for it. Still, the problem is worthy of a few remarks.

Minds do not only reflect reality. Minds also fear reality, want it, misconstrue it, and mask their ignorance about it. Some of this sinks down (gets reflected) into our concepts, too. Therefore, the study of concepts, which is, once again, a study of both mind and language, cannot be a totally trustworthy clue to the understanding of reality. J.L. Austin is one of the many who is aware of this. On the one hand, he is convinded that the analysis of language is of philosophical interest, for language embodies "the inherited experience and acumen of many generations of men" (Austin 1970c: 185). On the other hand, he issues a warning that is worth quoting in full:

"But then, that acumen has been concentrated primarily upon the practical business of life. If a distinction works well for practical purposes in ordinary life (no mean feat, for even ordinary life is full of hard cases), then there is sure to be something in it, it will not mark nothing: yet this is likely enough to be not the best way of arranging things if our interests are more extensive or intellectual than the ordinary. And again, that experience has been derived only from the sources available to ordinary men throughout most of civilized history: it has not been fed from the resources of the microscope and its successors. And it must be added too, that superstition and error and fantasy of all kinds do become incorporated in ordinary language and even sometimes stand up to the survival test (only, when they do, why should we not detect it?). Certainly, then, ordinary language is *not* the last word: in principle it can everywhere be supplemented and improved upon and superseded. Only remember, it is the first word." (1970c: 185)

A similar idea can be found in logical atomism, according to which linguistic structure both *pictures* and *conceals* the structure of reality. This tension is also evidenced by the very fact that post-atomist Anglo-Saxon philosophy branched off into Ordinary Language and Ideal Language Philosophy, and by the fact that neither the one nor the other can exist in total purity.⁶